JAMECO®

Since 1974

ELECTRONIC COMPONENTS
COMPUTER PRODUCTS
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SOURCING COMPONENTS GLOBALLY FOR WORLDWIDE DISTRIBUTION

EXTECH Calibrator/Multimeter
15 Function with TRUE RMS

- Large 4000/40000 count backlit LCD displays primary, secondary, source/measure ranges and functions selected
- Separate input/output banana jacks with fused protection
- Precision current loop and voltage calibration source with .03% accuracy
- Duty cycle: 0.1 - 99.9%
- DC voltage/resolution: 400mV/1µV, 400mV/10µV - 300V/10µV
- AC voltage/resolution: 40mV/1µV - 300V/µV
- DC/AC current: 40mA/1µA - 400mA/µA
- Resistance: 400Ω/.01Ω - 4MΩ/.01Ω, 40MΩ/1KΩ
- Temperature (type K): -40°F to 2502°F @ 1/0.1°F resolution, -40°C to 1372°C @ 1/0.1°C resolution
- Frequency: 100Hz/.001Hz - 200kHz/.001Hz
- True RMS measurement for non-linear voltage and current loads • Pulse width: 0.2 - 1999.9mS
- Built-in isolated RS232 interface for data acquisition software
- Includes input/output test leads, temperature probe, external battery pack, 9V battery, protective holster and pouch case
- Size: 7.6"L x 3.5"W x 1.5"H
- Weight: 2.9 lbs. • One-year warranty

Part No.	Product No.	Description	Price
145525	CMM-15	Calibrator/multimeter	$499.95

QTRONIX 2-Button Serial Mouse

- IBM PC AT, 386, 486, Pentium® and above or 100% compatible
- Button colors: brown and dark gray
- PS/2 connection
- DOS and Windows compatible
- Includes 3.5" setup disk and Lynx fancy mouse
- Size: 4.5"L x 2.8"W x 1.8"H
- Weight: 0.4 lbs. • One-year warranty

Part No.	Description	1-9	10-24
145699	2-button serial mouse	$13.95	$12.49

UCANDO Understanding Fiber Optics Video Tape

Learn tomorrow's technology today. Fiber optics is changing the way we live, think and communicate, and you can be part of this. In this video you will learn about connectors, couplers, splices, transmitters and receivers. Includes tape and student workbook. (58 minutes play time)

- Size: 9.0" x 6.0" • Weight: 0.6 lbs.

Part No.	Description	Price
146350	Understanding Fiber Optics	$39.95

UCANDO Laser Technology Video Tape

Discover the basics of laser technology with this exciting training video. Learn how photon energy is produced and controlled, then examine four common laser devices: the ruby rod, HeNe, CO_2 gas, and semiconductor lasers. You will learn how lasers are used for retrieving information from compact disks and scanning devices. (57 minutes play time)

- Size: 9.0" x 6.0" • Weight: 0.6 lbs.

Part No.	Description	Price
146552	Laser Technology Video	$39.95

Weller-Ungar Desoldering Station

- Variable temperature: 450° to 800°F
- Electronic control
- 24 volt at the handle with switch for vacuum
- ESD safe, CMOS safe
- 3 wire grounded, input 120VAC @ 60Hz • Size: (base) 6.7"H x 5.1"W x 7.5"D
- Weight: 9.9 lbs. • One-year warranty
- For replacement tips see below

Part No.	Description	Price
146747	Desoldering station	$549.95

Desoldering Replacement Tips

146780	146771	146755	146763

Part No.	Product No.	Description	Price
146780	4005	Desoldering tip .036"	$17.95
146771	4006	Desoldering tip .046"	17.95
146755	4007	Desoldering tip .071"	17.95
146763	4008	Desoldering tip .091"	17.95

Weller® 40-Watt Electronic Soldering Station

- 40 Watts, 120V @ 60Hz
- Lighted on/off switch
- Adjustable power from 5 watts - 40 watts
- Temperature is electronically controlled from 350°F to 850°F
- Includes ST3 1/8" screwdriver tip, soldering station and soldering handle and manual
- UL listed • Size: 5.5"L x 4.5"W x 3.5"H
- Weight: 1.9 lbs. • One-year warranty

Part No.	Product No.	Description	Price
146595	WLC100	40 watt soldering station	$44.95

Replacement Tips for WLC100

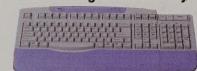|		
146616	146624	146608

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Replacement tips for P/N 146595 • Weight: 0.1 lbs.

Part No.	Product No.	Description	Price
146616	ST3	Screwdriver tip 1/8"	$5.95
146624	ST7	Conical tip 1/32"	5.95
146608	ST1	Screwdriver tip 1/16"	5.95

110-Key Keyboard AT Multimedia with 18 "Intellikeys" and 19 Programmable Keys

- PC/XT/AT and compatibles (requires CD-ROM drive)
- 19 Intellikeys with multimedia and application functions
- Multimedia Intellikeys: play, pause, stop, volume+ and volume-, next and previous track, mute, record and rewind
- Application Intellikeys: WWW, my doc., DOS, calculator, menu, help, sleep, close, game, rotate window • Built-in microphone
- 18 additional programmable keys • 5-pin connector
- Includes setup and tutorial CD-ROM
- Size: 18.5"L x 7.3"W x 1.3"H
- One-year warranty • Weight: 3.1 lbs.

Part No.	Description	1-4	5-9
146481	110-key multimedia keybrd	$49.95	$44.95

Packard Bell Bare-bones System for Intel Pentium® Processors

Monitor not included

- Select a 75-133 MHz Pentium processor (pg 13) to meet your specific needs
- Includes 8MB RAM, expandable to 128MB RAM using (4) 72-pin SIMMs • 640KB cache on board
- Three 32-bit PCI slots, three 16-bit ISA slots
- Peripherals on board: hard drive and floppy drive controller, 1MB SVGA video (expandable to 2MB), serial and parallel ports
- 3.5" floppy drive with cable
- 3 exposed 5.25" bays; one internal 3.5" bay
- Includes mouse, keyboard and power cable
- Case size: 17.0"L x 7.8"W x 15.5"H
- Weight: 33.0 lbs. • One-year warranty

Part No.	Description	Price
145162	Packard Bell desktop system	$249.95

Tech Spray Workshop Products

146384	146413	146392	146421	146405

Anti-Static Foaming Cleaner

- Non-ozone depleting, controls static, non-streaking, easy application, foaming cleaner
- Weight: 0.57 lbs. • 6 oz. can

Part No.	Description	1-11	12-59
146384	Anti-static foaming cleaner	$3.95	$3.49

Zero Charge Hand Lotion

- No silicones or Lanolin, encapsulating formula
- Applications: PCB manufacturing and assembly operations • Weight: 0.57 lbs. • 2 oz. can

Part No.	Description	1-9	10-24
146413	Zero charge hand lotion	$2.95	$2.49

8" Tool Brush

- For cleaning PCB boards as well as components of residue • Weight: 0.03 lbs.

Part No.	Description	1-9	10-24
146392	8" tool brush	$3.95	$3.49

Techhold Adhesive

- For bonding materials like glass, metals, rubber, ceramics and most plastics
- Best for general purpose bonding
- Weight: 0.02 lbs. • 3 grams

Part No.	Description	1-9	10-24
146421	Techhold adhesive	$1.95	$1.75

Alcohol Pen

- Isopropanol alcohol pen • Weight: 0.06 lbs.

Part No.	Description	1-11	12-59
146405	Alcohol pen	$4.95	$4.49

Be sure to review this 974 edition of the Jameco Catalog. We have once again added hundreds of new products and continue to offer great values in the remainder of 1997.

In order to provide the highest quality products at the lowest possible cost, Jameco has established a worldwide network of suppliers and manufacturers. Our strong "resourcing power" results in savings for you and is also a service we extend to you to locate your hard-to-find components.

And no matter if you are picking up your order from the Jameco offices in Belmont, California, or taking delivery from FedEx in Germany, you'll always find that…

1 **99% OF ALL ORDERS**
are shipped the same day so your product arrives on-time.

2 **ALWAYS SOMETHING NEW**
Over 245 new products added in this catalog including new components, connectors, test equipment, computer products and much, much more.

3 **99.7% PRODUCT AVAILABILITY**

4 **30-DAY MONEY-BACK GUARANTEE**

5 **CONVENIENT ORDERING OPTIONS**
We've adapted to your hectic schedule by offering six easy ways to order, including Internet, 24-hour toll-free phone, fax, standard mail, BBS and will-call.

6 **FLEXIBLE PAYMENT OPTIONS**
Nine possible payment methods.

7 **SPECIAL DISCOUNTS…**
are offered quarterly through sale and closeout items.

8 **EASY ACCESS**
Need a part on Saturday for your weekend project? Visit our convenient JIM-PAK national retail network.

9 **CUSTOM TAILORED SERVICES**
Offered to corporate and education accounts.

10 **RIGOROUS PRODUCT TESTING**

If you have any additional ideas or questions, please feel free to call, write, fax or e-mail us. We love hearing from you!

Sincerely,

Steve Rummel
Technical Services Manager

JAMECO
ELECTRONIC COMPONENTS
COMPUTER PRODUCTS

FAX Order Hotline
1·800·237·6948
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Jameco Electronics is conveniently located in Belmont, just off Highway 101, between Ralston Avenue and Holly Street.

SERVICE

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Now our library of more than 1,600 technical documents is available on the Internet. By using the Online Catalog at http://www.jameco.com you can search for products by category, number or keyword and then download the document(s) you need. It's easy, fast and free!

THANK YOU!

As a special thank you for your purchases over $150, Jameco will include a handsome coffee mug with your shipment while supplies last! This offer expires December 15th, 1997.

146827

WHAT'S NEW

INSIDE & OUTSIDE COVERS
NEW low-cost Pentium® Computer Systems!

PAGE 18
More PIC Chips from Microchip® and new accessory items!

PAGE 30
Popular Transistors and Diodes from ECG® Semiconductor!

PAGE 83
NEW Prototyping Boards and Enclosures!

PAGE 119 & BACK COVER
The latest in high-speed Modems… 56Kbps internal and external models!

PAGE 129
NEW Telephone Ringing Generators from Black Magic!

BACK COVER
Universal EPROM Programmer from DATA I/O for under $1,000!

SAVINGS LEGEND

SALE For components and IC's, buy at the highlighted quantity or greater for low sale pricing. Or, purchase any quantity of items bannered with only one **SALE** price. Good for this catalog only!

NEW New products— over 245 in this catalog! Look for RED Part Numbers on all new items.

Closeout! Last chance! Purchase any quantity of items marked with rock-bottom closeout prices.

FTP Indicates additional information or software is available from the Jameco FTP (file transfer protocol) site at ftp.jameco.com.

Reduced Pricing Indicates new lower prices on stock items which we've passed on from our suppliers directly to you!

New products in Red. Primary pages in bold.

New products in Red. Primary pages in bold.

6 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day! 1·800·831·4242
International orders, call 1·650·592·8097
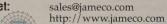
The following services are available at 1·650·592·8097 Monday - Friday from 6:30 a.m. - 5.00 p.m. PST or via e-mail:
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- Customer Service (custservice@jameco.com)
- Credit Department (credit@jameco.com)
- Technical Support (tech@jameco.com)

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BBS: Product listing on-line – dial 1·650·637·9025
Place your order or request a catalog on-line.

PAYMENT OPTIONS

Credit Card
We accept VISA, MasterCard, American Express and Discover. No surcharge. Your credit card will not be charged until your order is shipped.

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Check or Money Order
You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

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Jameco is pleased to offer the convenience of account payment. Contact us for information on obtaining open account status.

C.O.D.
Personal checks are accepted. Please add $5.00 per C.O.D. order. Include the name and address of your bank and your account number.

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All foreign orders must be prepaid with credit card (VISA, MasterCard, American Express or Discover), wire transfer, traveler's checks, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment. For credit card orders please advise name on card and credit card billing address. E-mail: international@jameco.com.

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Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges to all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a $25 processing fee.

Ahora ya podemos atender a nuestros clientes de habla Hispana

Para nuestros clientes provenientes de la Republica Mexicana, ya contamos con un Distribuidor Autorizado para aquellos que necesiten facturacion Mexicana y entrega de nuestros productos libre de Aduanas. Contactese con PROYECCION ELECTRONICA DE MEXICO, S.A. DE C.V. a el telefono (5) 536-8967 o solicite informacion via fax al (5) 536-8760.

PRICES
Prices are effective as of 10-27-97 and expire 1-23-98. Prices and discounts are subject to change without notice. We are not responsible for typographical errors. Photos are representative; product appearance may vary.

SHIPPING (U.S. ONLY)

Orders received Mon.-Fri. by 6:00 p.m. Eastern Standard Time (3:00 p.m. Pacific) will be shipped the same day. Orders received Saturday and Sunday will ship by 3:00 p.m. the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth $5.00 towards your next Jameco purchase. Same day shipping policy is subject to credit approval and stock availability.

Shipping Rates*

Ground Service (UPS)
Up to 9 working days
$5.00 for 1st 2 lbs.; $0.50 for each additional lb.

3-Day Service
$7.00 for 1st 2 lbs.; $1.00 for each additional lb.

2-Day Air Service
$10.00 for 1st 2 lbs.; $1.25 for each additional lb.

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- $18.00 for AM delivery for 1st 2 lbs.; $1.50 for each additional lb.
- $14.00 for afternoon delivery for 1st 2 lbs.; $1.50 for each additional lb.

Priority Mail
$3.00 for 1st 2 lbs.; $1.50 for each additional 1 lb.

* The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

Please add $5 for all orders less than $20.

CONFIRMING ORDERS
Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

SERVICE

30-Day Money Back Guarantee
Customers wishing to return merchandise for a refund, credit and/or exchange must do so within 30 days from the date of order. Returns without an RMA# will not be accepted. Please call our customer service department at 650·592·8097 to request an RMA#. Returns must be shipped prepaid with the RMA# clearly visible on the outside of the box. Sorry, no freight collect packages will be accepted. A copy of the Jameco customer service form (located on the back of the packing slip) must be filled out completely and is required along with an RMA# to process your return. Books, software, grab bags and special orders are not returnable. A special order consists of products not listed in the Jameco catalog or catalog listed products sold at an OEM quantity discount.

Jameco Warranty
Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from date of purchase unless otherwise stated. Longer and/or broader warranties may be provided by the manufacturer of a particular product. Defective items must be shipped prepaid. This warranty shall not apply to any item where defects have been caused by improper customer assembly, failure by customer to follow instructions, product modification, negligent or improper operation.

Limitation of Liability
Jameco's liability shall be limited to the repair or replacement of defective products in accordance with the Jameco limited warranty. Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause.

Attention Corporate & Education Purchasers!
To meet the needs of corporate and education purchasers, Jameco offers personalized service and volume discounts through our Inside Sales and Wholesale departments. To inquire about OEM quantity discounts and large order discounts, please call us at 1-800-794-9100, or fax at 1-800-592-8350.

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For your added convenience, our customer service staff is now available at 1-800-536-4316. Please use this number for any post-sales support such as order status inquiry or returns. Customer Service office hours are 6:30 a.m. to 5:00 p.m. PST.

JAMECO®
ELECTRONIC COMPONENTS
COMPUTER PRODUCTS

ORDER FORM
Catalog 974

Order 24 hours a day!
Seven days a week!
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1355 Shoreway Road, Belmont, CA 94002
TEL: 650•592•8097   FAX: 650•592•2503
FAX: 1•800•237•6948   BBS: 650•637•9025
International FAX: 650•592•2503

For expedient order placement, mention your V.I.P. number located above mailing address on the back cover.

V.I.P. No.	FOR OFFICE USE ONLY
	# /

1 **Customer Number:** _____
If you've previously ordered, your six digit customer number will be located above your mailing address on the back label.

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Company _____
Name _____ Title _____
Suite/Department _____
Street Address or P.O. Box _____
City _____ State _____ ZIP _____
Country _____
(___) _____
Daytime Phone No. – Important!

3 **Method of Payment:**

☐ Prepaid (check enclosed)   ☐ C.O.D. ($5.00 service charge)

☐ Net 30 Days (Account must be previously established. Authorized p.o. # required.)
PURCHASE ORDER NO.: _____

☐ Credit Card
Credit Card users only: VISA   MC   AMEX   DISCOVER

Credit Card Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐
Exp. Date: Mo. ☐☐ Yr. ☐☐ Name on card _____
Billing Address _____

4

ITEM NO.	QTY.	PART NUMBER	DATA SHEETS	DESCRIPTION	PAGE NO.	WEIGHT (LBS.)	UNIT PRICE	TOTAL
1								
2								
3								
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16								
17								

5 **Please Specify Shipping Method:**   UPS   FedEx Federal Express

TOTAL WEIGHT

☐ **UPS Ground** (Up to 9 working days) ....$5.00 for 1st 2 lbs., $0.50 for each additional lb.
☐ **3 Day Service** ....$7.00 for 1st 2 lbs., $1.00 for each additional lb.
☐ **2 Day Air Service** ....$10.00 for 1st 2 lbs., $1.25 for each additional lb.
☐ **Next Day Air Service** (AM delivery) ....$18.00 for 1st 2 lbs., $1.50 for each additional lb.
☐ **Foreign Shipment** via Air Parcel Post..............Shipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available.

Some restrictions may apply. See opposite page for other shipping methods and conditions of sale.
Shipping rate is based on a single package shipment.

Data Sheets $1.00 each	
SUB-TOTAL	
Add $5.00 processing fee on orders under $20	
Please Add Applicable Sales Tax (California Only)	
Shipping (See Item 5)	
C.O.D. (add $5.00)	
Canada and Mexico Certificate of Origin ($25)	
Credit Memo (please attach)	(-)
TOTAL	

6 *As a special thank you for purchases over $150, we will include a handsome Jameco coffee mug (P/N 146827) with your shipment while supplies last. Offer expires Dec. 15th 1997.*

JAMECO® *thanks you for Your Order!*

PHOTOCOPY THIS ORDER FORM FOR MULTIPLE USE!

We carry major manufacturers – call for pricing on quantities over 500.

7400 Series

Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
48979	7400★	14	Quad 2-input NAND gate	$.39	$.35	.29
49007	7401	14	Quad 2-input NAND gate (O.C.)	.29	.25	.12
49015	7402★	14	Quad 2-input NOR gate	.29	.25	.19
49031	7403	14	Quad 2-input NAND gate (O.C.)	.29	.25	.12
49040	7404★	14	Hex inverter (9016) (FD-1073-BJ)	.39	.35	.29
49074	7405	14	Hex inverter (O.C.)	.29	.25	.19
49091	7406★	14	Hex inverter buffer/driver (O.C.)	.35	.29	.25
49120	7407★	14	Hex buffer/driver (O.C.)	.45	.39	.35
49146	7408★	14	Quad 2-input AND gate (OG765007)	.39	.35	.29
49189	7410★	14	Triple 3-input NAND gate	.25	.22	.12
49269	7411★	14	Triple 3-input AND gate	.69	.59	.49
49402	7413	14	Dual 4-input NAND gate Schmitt trig.	.25	.22	.10
49437	7414★	14	Hex inverter Schmitt trigger	.35	.29	.25
49630	7416	14	Hex inverter buffer/driver (O.C.) (9004595)	.29	.25	.12
49728	7417★	14	Hex buffer/driver (O.C. hi-voltage)	.35	.29	.25
50008	7420★	14	Dual 4-input NAND gate	.35	.29	.19
50024	7421	14	Dual 4-input AND gate	1.39	1.19	1.09
50083	7425	14	Dual 4-input NOR gate with strobe	.35	.29	.25
50139	7427	14	Triple 3-input NOR gate	.25	.22	.10
50227	7430	14	8-input NAND gate	.25	.22	.12
50235	7432★	14	Quad 2-input OR gate	.39	.35	.29
50315	7438	14	Quad 2-input NAND buffer (O.C.)	.25	.22	.12
50358	7440	14	Dual 4-input NAND buffer	.25	.22	.10
50374	7442★	16	BCD-to-decimal decoder	.49	.45	.39
50403	7445	16	BCD-to-decimal decoder/driver (30V)	.99	.89	.79
50411	7446	16	BCD-to-7 segment decoder/driver (30V)	1.19	1.09	.99
50420	7447★	16	BCD-to-7 segment decoder/driver (15V)	1.09	.99	.89
50454	7448	16	BCD-to-7 segment decoder/driver	3.95	3.49	2.95
50518	7470	14	Edge-triggered JK flip-flop	.49	.45	.25
50526	7472	14	AND gated JK master/slave flip-flop	.89	.79	.69
50534	7473★	14	Dual JK flip-flop with clear (DM8501N)	.99	.89	.79
50551	7474★	14	Dual D flip-flop	.45	.39	.25
50577	7475★	16	4-bit bistable latch (3008195-00)	1.39	1.19	1.09
50593	7476★	16	Dual JK flip-flop with preset and clear	1.19	1.09	.99
50631	7483★	16	4-bit binary full adder	.89	.79	.69
50657	7485	16	4-bit magnitude comparator	.45	.39	.19
50665	7486★	14	Quad EXCLUSIVE-OR gate (30731483-001)	.55	.49	.45
50681	7489★	16	64-bit RAM P 50ns (3101)	2.95	2.75	2.49
50690	7490★	14	Decade counter	.89	.79	.69
50737	7492	14	Divide-by-12 counter	1.19	1.09	.99
50745	7493★	14	4-bit binary counter	.79	.69	.59
50770	7495	14	4-bit parallel-access shift register	.69	.59	.49
50796	7497	16	Synch. 6-bit binary rate multipliers	Closeout		1.09
49234	74107	14	Dual JK flip-flop with clear	.19	.15	.09
49293	74116	24	Dual 4-bit latches with clear (9308)	.89	.79	.49
49322	74121★	14	Monostable multivibrator (SA760532)	.99	.89	.79
49349	74122	14	Retriggerable mono. multivibrator with clear	.89	.79	.69
49357	74123★	16	Dual retriggerable mono. multivibrator	.99	.89	.69
49373	74125★	14	Quad bus buffer tri-state (DM8093N)	.99	.89	.69
49381	74126	14	Quad bus buffer tri-state (DM8094N)	.69	.59	.39
49390	74128	14	Quad 2-input NOR line driver	.39	.35	.15
49411	74132	14	Quad 2-input NAND Schmitt trigger	.69	.59	.35
49453	74141	16	BCD-to-decimal decoder/driver (60V)	Closeout		3.95
49470	74145	16	BCD-to-decimal decoder/driver (15V)	.79	.69	.59
49488	74147	16	10/4 priority encoder	4.95	4.75	4.49
49496	74148	16	8 to 3 line octal priority encoder	.89	.79	.69
49509	74150★	24	16 to 1 line multiplexer	1.75	1.55	1.35
49525	74151	16	8-input multiplexer	.29	.25	.10
49550	74153	16	Dual 4/1 data selector/multiplexer	.25	.19	.12
49568	74154★	24	4 to 16 line decoder/demultiplexer (9311)	2.25	1.95	1.75
49584	74155	16	Dual 2/4 demultiplexer	.29	.25	.12
49605	74157	16	Quad 2/1 data selector (9322)	.35	.29	.15
49621	74159	24	1 of 16 decoder/demultiplexer (O.C.)	1.55	1.35	.99
49648	74160	16	Decade counter with asynch. clear	.19	.15	.09
49664	74161	16	Synchronous 4-bit counter (9316)	.35	.29	.12
49672	74163	16	Synchronous 4-bit counter	.39	.35	.12

7400 Series (Continued)

Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
49681	74164	14	8-bit serial shift register (3008256)	$.35	$.29	$.12
49699	74165	16	8-bit serial shift register, parallel load	.69	.59	.39
49779	74174	16	Hex D-type flip-flop with clear	.29	.25	.10
49795	74175	16	Quad D-type flip-flop with clear	.29	.25	.12
49824	74179	16	4-bit parallel-access shift register	.79	.69	.39
49832	74180	14	9-bit odd/even parity generator/checker	.79	.69	.39
49841	74181	24	Arithmetic logic unit/function generator	1.95	1.75	1.55
49883	74189	16	64-bit RAM tri-state (DM8599N)	1.95	1.75	1.19
49891	74190	16	Up/down decade counter	2.95	2.75	2.49
49904	74191	16	Binary up/down counter	.99	.89	.69
49912	74192★	16	Decade up/down counter with clear	1.75	1.55	1.35
49939	74193★	16	Binary up/down counter with clear	1.39	1.19	1.09
49955	74194	16	4-bit bi-directional shift register	1.39	1.19	1.09
49963	74195	16	4-bit parallel-access shift register	.29	.25	.10
49980	74198	24	8-bit bi-directional shift register	4.95	4.75	4.45
49998	74199	24	8-bit shift register, parallel load	.49	.45	.25
50041	74221	16	Dual mono. multiv. Schmitt trigger	.35	.29	.10
50104	74259	16	8-bit addressable latch (9334)	.35	.29	.10
50171	74279	16	Quad set-reset latch	.19	.15	.08
50260	74365	16	Hex buffer/AND gate tri-state	.19	.15	.08
50286	74367	16	Hex buffer tri-state (DM8097N)	.19	.15	.08
50294	74368	16	Hex buffer inverter tri-state	.19	.15	.06
50331	74390	16	Dual 4-bit decade counter	.39	.35	.10
88225	SDLD001A	—	Texas Instruments TTL Data Book	SALE		24.95

Part No.	Description	See page 21 for details		1-4	5-9
84953	330 pc. 7400 series IC cabinet kit	$204 Value	SALE	$152.95	
130382	Refill package for 84953 kit (330 pcs.)		139.95	129.95	

74C00 Series

Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
44222	74C00	14	Quad 2-input NAND gate	$.89	$.79
63538	74C02	14	Quad 2-input NOR gate	.79	.49
44231	74C04	14	Hex inverter (CD4069)	.49	.45
63546	74C08	14	Quad 2-input AND gate	.69	.59
44257	74C14★	14	Hex inverter Schmitt trigger (CD40106)	.39	.35
44388	74C32	14	Quad 2-input OR gate	.59	.29
44425	74C48	16	BCD to 7-segment decoder/driver	1.95	1.75
44441	74C74	14	Dual D flip-flop	.89	.79
44484	74C90	14	Decade counter	.69	.35
44265	74C154	24	4 to 16-line decoder/demultiplexer	Closeout	1.95
44281	74C161	16	Synchronous 4-bit counter (CD40161)	.29	.08
44329	74C174	16	Hex flip-flop (CD40174/MC14174BPC)	.49	.45
63600	74C175	16	Quad D flip-flop (CD40175/MC14175BPC)	.49	.45
44337	74C192	16	Decade up/down counter (40192)	1.19	1.09
44345	74C193	16	Binary up/down counter w/ clear (40193)	.89	.79
44361	74C221	16	Dual monostable multivibrator	2.95	2.75
44370	74C244	20	Octal driver tri-state	1.95	1.49
13469	74C367	16	Hex buffer tri-state (80C97/CD4503)	.49	.45
44396	74C373	20	Octal D-type flip-flop with clear tri-state	1.75	1.55
44409	74C374	20	Octal D flip-flop tri-state (INS82C06N)	1.95	1.49
44521	74C912	28	6-digit BCD display controller (INS8248N)	12.95	9.95
44564	74C922	18	16-key keyboard encoder (INS8245N)	5.95	5.49
44572	74C923	20	20-key keyboard encoder (INS8246N)	5.95	4.95
44581	74C925	16	4-digit CTR with MUX D segment driver	7.95	6.95
44599	74C926	18	4-digit CTR with MUX D segment driver	7.95	6.95
93251	DL131D	—	Motorola CMOS Logic Data Book	7.95	6.95

74F00 Series

Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
44610	74F00	14	Quad 2-input NAND gate	$.25	$.10
44652	74F10	14	Triple 3-input NAND gate	.25	.10
44855	74F74	14	Dual D flip-flop	.25	.10
44863	74F86	14	Quad EXCLUSIVE-OR gate	.25	.10
44661	74F138	16	3 to 8 decoder/demultiplexer	.25	.10
44783	74F245	20	Octal bus transceiver tri-state	.25	.10
44821	74F373	20	Octal D flip-flop tri-state	.25	.10
44839	74F374	20	Octal D flip-flop edge-triggered tri-state	.25	.10
93278	DL121D	—	Motorola Fast & LS TTL Data Book	7.95	6.95

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74S00 Series — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
48258	74S00	14	Quad 2-input NAND gate	$.25	$.10
48266	74S02	14	Quad 2-input NOR gate	.25	.10
48282	74S04	14	Hex inverter	.25	.19
48303	74S08	14	Quad 2-input AND gate	.25	.10
48320	74S10	14	Triple 3-input NAND gate	.25	.10
48338	74S11	14	Triple 3-input AND gate	.25	.10
48573	74S20	14	Dual 4-input NAND gate	.25	.10
48750	74S32	14	Quad 2-input OR gate	.25	.10
48944	74S74	14	Dual D flip-flop	.29	.15
48397	74S138	16	3 to 8 decoder/demultiplexer	.59	.39
48531	74S188	16	256-bit (32x8) PROM O.C. (27S18)	2.95	2.75
48557	74S189	16	64-bit (16x4) RAM tri-state (27S03)	2.09	1.95
48696	74S287	16	1K-bit (256x4) PROM tri-state (TBP24S10)	2.95	2.75
48717	74S288	16	256-bit (32x8) PROM tri-state (27S19)	2.49	1.95
48768	74S373	20	Octal D-type flip-flop tri-state	.49	.19
48776	74S374	20	Octal D flip-flop edge-triggered tri-state	.49	.29
48805	74S387	16	1K-bit (256x4) PROM O.C. (TBP24SA10N)	2.49	1.95
32774	74S471	20	256x8 tri-state (TBP28L22N)	3.95	3.25
48864	74S472	20	4K-bit (512x8) PROM tri-state (N82S147)	5.95	5.39
48910	74S571	16	2K-bit (512x4) PROM tri-state	3.95	3.59
48928	74S573	18	4K-bit (1024x4) PROM tri-state (53S441J)	2.95	2.25

74LS00 Series — Dual-In-Line Packag

Part No.	Product No.	Pins	Description	1-9	10-99	100
46252	74LS00★	14	Quad 2-input NAND gate (74ALS00)	$.25	$.19	$.15
46287	74LS02★	14	Quad 2-input NOR gate (74ALS02)	.25	.19	.17
46308	74LS03	14	Quad 2-input NAND gate (O.C.)	.25	.19	.12
46316	74LS04★	14	Hex inverter (74ALS04)	.25	.19	.17
46341	74LS05	14	Hex inverter (O.C.) (74ALS05)	.25	.19	.15
46359	74LS06★	14	Hex inverter buffer/driver (O.C.)	.39	.35	.29
46367	74LS07	14	Hex buffer/driver (O.C. hi-voltage)	.69	.59	.49
46375	74LS08★	14	Quad 2-input AND gate (74ALS08)	.25	.19	.17
46391	74LS09	14	Quad 2-input AND gate (O.C.)	.25	.19	.15
46404	74LS10	14	Triple 3-input NAND gate	.25	.19	.17
46439	74LS11★	14	Triple 3-input AND gate (74ALS11)	.25	.19	.15
46640	74LS14★	14	Hex inverter Schmitt trigger	.25	.19	.17
46691	74LS15	14	Triple 3-input AND gate (O.C.)	.25	.19	.10
47095	74LS20	14	Dual 4-input NAND gate	.25	.19	.17
47108	74LS21	14	Dual 4-input AND gate	.25	.19	.12
47378	74LS27	14	Triple 3-input NOR gate	.25	.19	.15
47458	74LS30	14	8-input NAND gate (74ALS30)	.25	.19	.17
47466	74LS32★	14	Quad 2-input OR gate	.25	.19	.17
47597	74LS37	14	Quad 2-input NAND buffer	.25	.19	.12
47693	74LS38	14	Quad 2-input NAND buffer (O.C.)	.29	.25	.10
47773	74LS42	16	BCD-to-decimal decoder	.35	.29	.25
47790	74LS47★	16	BCD to 7-seg. decoder/driver (O.C.)	.89	.79	.69
47811	74LS48★	16	BCD to 7-seg. decoder/driver	.89	.79	.69
47837	74LS51	14	Dual 2-wide 2-input AND/OR inv. gate	.25	.19	.12
47853	74LS54	14	Quad 2-input AND/OR invert. gate	.29	.25	.15
47992	74LS73	14	Dual JK flip-flop with clear	.35	.29	.25
48004	74LS74★	14	Dual D flip-flop (74ALS74)	.25	.19	.17
48021	74LS75★	16	4-bit bi-stable latch	.55	.45	.39
48039	74LS76★	16	Dual JK flip-flop with preset and clear	.59	.49	.45
48063	74LS83	16	4-bit binary full adder	.45	.39	.35
48071	74LS85	16	4-bit magnitude comparator	.35	.29	.25
48098	74LS86★	14	Quad EXCLUSIVE-OR gate	.29	.25	.22
48119	74LS90★	14	Decade counter	.39	.35	.29
48143	74LS92	14	Divide-by-12 counter	.45	.39	.35
48151	74LS93★	14	4-bit binary counter	.35	.29	.25
48178	74LS95	14	4-bit parallel-access shift register	.39	.35	.25
46412	74LS107	14	Dual JK flip-flop with clear	.25	.19	.15
46421	74LS109	16	Dual JK pos. edge-trig. flip-flop	.25	.19	.15
46447	74LS112	16	Dual JK neg. edge-trig. flip-flop	.25	.19	.12
46471	74LS122	14	Retrig. mono. multivibrator comm. CLK	.39	.35	.29
46480	74LS123★	16	Dual mono. multivibrator with clear	.35	.29	.25
46501	74LS125★	14	Quad bus buffer neg. enable tri-state	.35	.29	.25

74LS00 Series (Continued) — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
46527	74LS126	14	Quad bus buffer tri-state	$.35	$.29	$.25
46551	74LS132	14	Quad 2-input NAND Schmitt trigger	.35	.29	.25
46586	74LS136	14	Quad EXCLUSIVE-OR gate (O.C.)	.35	.29	.15
46607	74LS138★	16	3 to 8 decoder/demultiplexer (74ALS138)	.29	.25	.22
46623	74LS139★	16	2 to 4 decoder/demultiplexer	.29	.25	.22
46666	74LS145	16	BCD-to-decimal decoder/driver	.45	.39	.35
46674	74LS147★	16	10 to 4 priority encoder	.99	.89	.79
46682	74LS148	16	8 to 3 priority encoder	.89	.79	.69
46703	74LS151★	16	8-input multiplexer	.29	.25	.22
46720	74LS153	16	Dual 4 to 1 selector/multiplexer	.29	.25	.22
46738	74LS154★	24	4 to 16 line decoder/demultiplexer	1.75	1.55	1.35
46754	74LS155	16	Dual 2/4 demultiplexer (3013525-00)	.25	.19	.10
46762	74LS156	16	Dual 2/4 demultiplexer (O.C.)	.25	.19	.10
46771	74LS157★	16	Quad 2/1 data selector	.29	.25	.22
46797	74LS158	16	Quad 2/1 multiplexer inverter	.25	.19	.12
46800	74LS160	16	Decade counter with asynch. clear	.69	.59	.35
46818	74LS161★	16	Synch 4-bit counter (733W01729L1)	.29	.25	.22
46842	74LS163★	16	Fully synch. 4-bit counter (2892385-00)	.29	.25	.22
46851	74LS164★	14	8-bit serial shift register	.29	.25	.22
46877	74LS165★	16	8-bit serial shift register, parallel load	.49	.45	.39
46885	74LS166	16	8-bit shift register, parallel load	.35	.29	.25
46906	74LS169	16	Synch. binary up/down counter	.59	.49	.35
46922	74LS173	16	4-bit D-type reg. tri-state	.39	.35	.29
46931	74LS174★	16	Hex D flip-flop with clear	.29	.25	.22
46957	74LS175★	16	Quad D flip-flop with clear	.29	.25	.22
46973	74LS181	24	Arithmetic logic unit/function generator	1.09	.99	.89
46990	74LS190	16	Up/down decade counter	.59	.49	.45
47001	74LS191★	16	Up/down binary counter	.39	.35	.29
47010	74LS192★	16	Decade up/down counter with clear	.69	.59	.49
47036	74LS193★	16	Binary up/down counter with clear	.39	.35	.29
47052	74LS194	16	4-bit bi-directional shift register	.59	.49	.45
47061	74LS195	16	4-bit parallel-access shift register	.35	.25	.12
47124	74LS221★	16	Dual mono. multivibrator Schmitt trigger	.39	.35	.29
47141	74LS240★	20	Octal invert. line driver tri-state (74ALS240)	.35	.29	.15
47167	74LS241	20	Octal bus/line driver tri-state	.35	.29	.25
47175	74LS243	14	Quad transceiver tri-state	.35	.29	.25
47183	74LS244★	20	Octal driver tri-state (74ALS244)	.39	.35	.29
47212	74LS245★	20	Octal bus transceiver tri-state	.39	.35	.29
47247	74LS247	16	BCD to 7-segment decoder/driver (O.C.)	.79	.69	.59
47271	74LS251	16	8-channel multiplexer tri-state	.35	.29	.15
47280	74LS253	16	Dual 4 to 1 multiplexer tri-state	.35	.29	.12
47298	74LS257	16	Quad 2-input multiplexer tri-state	.29	.25	.15
47319	74LS258	16	Quad 2/1 multiplexer inverting tri-state	.29	.19	.12
47327	74LS259	16	8-bit addressable latch	.39	.35	.25
47360	74LS266	14	Quad EXCLUSIVE-NOR gate (O.C.)	.35	.29	.19
47386	74LS273★	20	Octal D-type flip-flop with clear	.39	.35	.29
47407	74LS279	16	Quad set-reset latches	.29	.25	.19
47415	74LS280	14	9-bit odd/even parity generator/checker	.29	.19	.08
47423	74LS283	16	4-bit binary full add with fast carry	.45	.39	.35
47440	74LS299	20	8-bit universal shift/storage register	1.09	.99	.69
47482	74LS322	20	8-bit serial reg. with sign extended	.29	.19	.10
47491	74LS323	20	8-bit universal shift/storage register	.59	.49	.29
47546	74LS365	16	Hex buffer with logical OR tri-state	.29	.19	.10
47562	74LS367	16	Hex buffer tri-state	.29	.25	.22

Jameco IC Test Clip Series

- For temporary connections to DIP package components
- Heavy-duty spring loaded hinge provides positive contact • Color: white plastic
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22103

Part No.	Product No.	Description	1-9	10-24
22103	JTC16★	16-pin (for 8, 14 and 16-pin ICs)	$4.95	$4.49
22120	JTC20★	20-pin (for 18 and 20-pin ICs)	6.95	6.25
22146	JTC24	24-pin	6.95	6.25
22162	JTC28	28-pin	8.95	7.95
22189	JTC40	40-pin	10.95	9.95

We carry major manufacturers – call for pricing on quantities over 500.

74LS00 Series (Continued)
Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
47589	74LS368	16	Hex inverter tri-state	$.29	$.25	$.15
47600	74LS373★	20	Octal D flip-flop tri-state (74ALS373)	.39	.35	.29
47634	74LS374★	20	Octal D F/F edge-trig tri-state (74ALS374)	.39	.35	.29
47669	74LS377	20	Octal D register common enable	.39	.35	.29
47722	74LS390	16	Dual 4-bit decade counter	.39	.35	.29
47731	74LS393	14	Dual 4-bit binary counter	.45	.39	.35
47861	74LS540	20	Octal invert. buffer/line driver tri-state	.45	.39	.29
47870	74LS541	20	Octal buffer/line driver tri-state	.69	.59	.49
64418	74LS573	20	Octal D-type F/F latch tri-state (74ALS573)	1.29	1.19	.89
64426	74LS574	20	Octal D-type F/F edge-trig. tri-state (74ALS574)	1.29	1.19	.89
47909	74LS590	16	8-bit binary cntr. without reg. tri-state	2.75	2.49	1.95
103974	74LS595	16	8-bit serial-to-parallel shift reg. tri-state	2.25	1.95	1.49
47925	74LS629	16	Dual voltage-controlled oscillator	.79	.69	.29
47933	74LS640	20	Octal inverting bus trans. tri-state	.59	.49	.29
47950	74LS645	20	Octal bus transceiver tri-state	.59	.49	.29
47976	74LS670	16	4x4 register file tri-state	.29	.25	.15
47984	74LS688★	20	8-bit magnitude comparator	1.19	1.09	.99
52214	81LS95	20	Octal buffer tri-state (74LS465)	1.49	1.35	.99

Part No.	Description	See page 21 for details		1-4	5-9
84961	420 pc. 74LS series IC cabinet kit	$141 Value		$119.95	$107.95
130391	Refill package for 84961 kit (420 pcs.)			104.95	94.95

74HC00 Series
Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
45161	74HC00★	14	Quad 2-input NAND gate (6231581)	$.25	$.19	$.17
45188	74HC02	14	Quad 2-input NOR gate	.25	.19	.15
45209	74HC04★	14	Hex inverter (buffered)	.25	.19	.17
88081	74HC05	14	Hex inverter (O.C.)	.29	.25	.15
45225	74HC08	14	Quad 2-input AND gate	.25	.19	.17
45233	74HC10	14	Triple 3-input NAND gate	.25	.19	.12
45268	74HC11	14	Triple 3-input AND gate	.25	.19	.12
45364	74HC14★	14	Hex inverter Schmitt trigger	.35	.29	.25
45786	74HC30	14	8-input NAND gate	.25	.19	.12
45794	74HC32	14	Quad 2-input OR gate	.25	.19	.15
46130	74HC74★	14	Dual D flip-flop	.29	.25	.22
46172	74HC85	16	4-bit magnitude comparator	.59	.49	.45
46181	74HC86	14	Quad EXCLUSIVE-OR gate	.35	.29	.25
45276	74HC112	16	Dual JK flip-flop	.35	.29	.19
45292	74HC123	16	Dual retrig. monostable multivibrator	.49	.45	.39
45305	74HC125	14	Quad bus buffer tri-state	.29	.25	.15
45321	74HC132	14	Quad 2-input NAND Schmitt trigger	.49	.45	.39
45330	74HC138	16	3 to 8 decoder/demultiplexer	.45	.39	.35
45356	74HC139	16	2 to 4 decoder/demultiplexer	.45	.39	.35
45399	74HC153	16	Dual 4/1 data selector multiplexer	.39	.35	.19
45401	74HC154	S-24	4/16 line decoder (.3"W)	1.29	1.19	.89
111739	74HC154W	24	4/16 line decoder (.6"W)	1.49	1.35	1.19
45444	74HC160	16	Decade counter with async. clear	.25	.19	.08
45452	74HC161	16	Synchronous 4-bit counter	.49	.45	.45
45479	74HC163	16	Synchronous 4-bit counter	.35	.29	.19
45487	74HC164	14	8-bit serial shift register	.49	.45	.39
45495	74HC165	16	Parallel load 8-bit serial shift reg.	.59	.49	.35
45508	74HC174	16	Hex D flip-flop with clear	.35	.29	.19
45516	74HC175	16	Quad D-type flip-flop with clear	.35	.29	.25
45541	74HC192	16	Decade up/down counter with clear	.49	.45	.39
45559	74HC193	16	Binary up/down counter with clear	.59	.49	.45
45604	74HC221	16	Dual mono. multivibrator Schmitt trigger	.65	.55	.39
45612	74HC240	20	Octal inverting line driver tri-state	.49	.45	.39
45655	74HC244★	20	Octal driver tri-state	.49	.45	.39
45671	74HC245	20	Octal transceiver tri-state	.49	.45	.39
45743	74HC273	20	Octal D-type flip-flop with clear	.69	.59	.49
45778	74HC299	20	8-bit univ. shift reg. tri-state	.69	.59	.29
45831	74HC373★	20	Octal D-type flip-flop tri-state	.59	.49	.45
45858	74HC374	20	Octal D-type flip-flop edge-trig tri-state	.59	.49	.45
45874	74HC393	14	Dual 4-bit binary counter	.59	.49	.45

74HC00 Series (Continued)
Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
109760	74HC540	20	Octal invert. buffer/line driver tri-state	$.79	$.69	$.59
46050	74HC541	20	Octal buffer/line driver tri-state	.79	.69	.59
46076	74HC573★	20	Octal D-type flip-flop tri-state	.79	.69	.59
46084	74HC574	20	Octal D-type flip-flop tri-state	.79	.69	.59
88090	74HC590	16	8-bit binary counter with output reg. tri-state	.99	.89	.79
46105	74HC595	16	8-bit serial-to-parallel shift reg. tri-state	.99	.89	.79
46113	74HC688	20	8-bit mag. comparator	.79	.69	.59
46199	74HC942	20	Full duplex low speed 300 baud modem chip	Closeout		2.49
46201	74HC943	20	Full duplex 300 baud modem chip	7.95	6.95	4.95
45891	74HC4017	16	Decade ctr./div. with 10 decoded outputs	.69	.59	.39
45903	74HC4020	16	14-stage binary counter	.49	.45	.25
45920	74HC4040	16	12-stage binary counter	.69	.59	.35
45938	74HC4046	16	CMOS phase lock loop	1.29	1.19	.99
45954	74HC4050	16	Hex buffer/converter	.29	.25	.15
88102	74HC4051	16	Single 8-channel multi/demultiplexer	.89	.79	.69
45962	74HC4060	16	14-stage binary counter	.75	.65	.55
45971	74HC4066	14	Quad analog switch	.59	.49	.35
46009	74HC4514	S-24	4/16-line decoder with latch (.3"W)	1.95	1.75	1.55
46017	74HC4538	16	Dual retrig. mono. multivibrator	.69	.59	.39
93251	DL131D	—	Motorola CMOS Logic Data Book	7.95	6.95	5.95

74HC00D Series
SOIC (Surface Mount) Package

Part No.	Product No.	Pins	Description	1-9	10-99
86086	74HC04D	14	Hex inverter	$.39	$.25
86107	74HC08D	14	Quad 2-input NAND gate	.19	.08
86123	74HC14D	14	Hex inverter Schmitt trigger	.29	.15
86140	74HC74D	14	Dual D flip-flop	.49	.25
86182	74HC138D	16	3 to 8 decoder/demultiplexer	.25	.12
86246	74HC373D	20	Octal D-type flip-flop tri-state	.59	.39
86262	74HC573D	20	Octal D-type flip-flop latch tri-state	.39	.19

74HCT00 Series
Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
44871	74HCT00	14	Quad 2-input NAND gate	$.25	$.15
44880	74HCT02	14	Quad 2-input NOR gate	.25	.15
44898	74HCT04	14	Hex inverter	.25	.19
63765	74HCT05	14	Hex inverter (O.C.)	Closeout	.25
44901	74HCT08	14	Quad 2-input AND gate	.25	.15
44935	74HCT14	14	Hex inverter Schmitt trigger	.39	.35
45057	74HCT32	14	Quad 2-input OR gate	.25	.19
45137	74HCT74	14	Dual D flip-flop	.25	.19
44927	74HCT138	16	3 to 8 decoder/demultiplexer	.29	.25
63773	74HCT139	16	2 to 4 decoder/demultiplexer	.29	.12
88057	74HCT154	24	4 to 16 decoder/demultiplexer	1.19	1.09
45014	74HCT240	20	Octal inverting line driver tri-state	.19	.08
111931	74HCT241	20	Octal bus/line driver	.19	.08
45022	74HCT244	20	Octal driver tri-state	.39	.19
45031	74HCT245	20	Octal transceiver tri-state	.45	.39
45049	74HCT273	20	Octal D-type flip-flop with clear	.45	.25
45065	74HCT373	20	Octal D-type flip-flop tri-state	.49	.39
45073	74HCT374	20	Octal D-type flip-flop edge-trig. tri-state	.49	.29
99303	74HCT541	20	Octal buffer/line driver tri-state	.79	.69
45090	74HCT573	20	Octal D-type latched flip-flop tri-state	.79	.69
45102	74HCT574	20	Octal D-type flip-flop edge-trigger tri-state	.79	.69
63829	74HCT646	S-24	Octal bus trans./reg. tri-state (.3"W)	1.95	1.25
45129	74HCT688	20	8-bit magnitude comparator	.89	.79
93251	DL131D	—	Motorola CMOS Logic Data Book	7.95	6.95

Commodore/6000 Series
Dual-In-Line Package

Part No.	Product No.	Pins	Description		
118261	63B03	64	MPU 8-bit (CMOS)	Closeout	$3.95
34500	WD1770	28	5.25" floppy disk controller/formatter (for 1571 drive)	7.95	5.95
43191	6502	40	MPU with internal clock (1MHz)	3.25	2.49
43166	65C02	40	MPU with internal clock (CMOS)	4.95	4.49
43246	6520A	40	PIA (peripheral interface adapter) 2MHz	3.75	2.95
43254	6522	40	VIA (versatile interface adapter) 1MHz	3.25	2.95

Commodore/6000 Series (Continued) — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
43174	65C22	40	Versatile interface adapter (CMOS)	$3.95	$3.59
43297	6532	40	128x8 RAM, I/O, timer array	3.25	2.75
43318	6551	28	ACIA (asynchronous comm. interface adapter)	2.95	1.95
43326	6551A	28	ACIA (asynchronous comm. interface adapter) 2MHz	3.75	3.25
43182	65C51	28	Asynchr. comm. interf. adapter (CMOS)	3.95	2.95
43334	6560	40	VIC-I (video interface chip)	.25	.12
43342	6567	40	VIC-II (video interface chip for C64) Closeout	3.95	
52951	8564	48	VIC (video interface chip for C128)	.29	.12
53401	901229-05	24	Upgrade ROM (for 1541 disk drive) Closeout		.29

Generators — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
10807	AY-3-8910	40	Prog. sound gen. with 2 8-bit I/O ports (YM2149) Closeout		$6.95
25021	MC14411P	24	Bit rate frequency generator	5.95	5.39
52257	WD8116	18	Dual baud rate clock gen. (4.91/5.06MHz)	3.95	2.75
51879	8038CCPD	14	Precision wave form generator	3.49	3.19

Telephone/Keyboard Chips — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
32803	TCM5089N	16	Integrated tone dialer	$3.95	$3.59
26075	MM53130N	18	Touch tone dialer chip	6.95	4.95
33654	TMS99532NL	18	FSK modem bell 103 compat. (300bits/sec.)	.99	.69

UARTs/USARTs/DUARTs/MUARTs — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
33953	TR1602B	40	40K BAUD UART Closeout		$1.25
43158	6402	40	CMOS/LSI UART (TR1863)	4.95	4.49
27588	NS16450N	40	ACE (IBM-AT software compat.)	3.95	3.59
27570	NS16C450N	40	CMOS ACE (IBM-AT software compat.)	3.95	2.95
27596	NS16550AN★	40	Universal asynch. rcvr/trans. with FIFOs	8.95	7.95
34420	VL16C550PC	40	Universal asynch. rcvr/trans. with FIFOs (CMOS)	8.95	7.95
10786	AY-3-1015D	40	25K BAUD UART	9.95	8.95
10823	AY-5-1013A	40	40K BAUD UART (TR1602) Closeout		8.95

CD4000 Series — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
12562	CD4001★	14	Quad 2-input NOR gate	$.25	$.19	$.17
12597	CD4007	14	Dual comp. pair with inverter	.25	.19	.17
54631	CD4010	16	Hex/buffer/converter (N-inverting)	.19	.17	.08
12634	CD4011★	14	Quad 2-input NAND gate (FD1079AH)	.25	.19	.17
12669	CD4012	14	Dual 4-input NAND gate	.25	.19	.15
12677	CD4013★	14	Dual D flip-flop with set/reset	.25	.19	.17
12706	CD4015	16	Dual 4-stage static shift register	.29	.25	.22
12722	CD4016★	14	Quad bilateral switch (74016)	.29	.25	.22
12749	CD4017★	16	Decade counter/divider	.35	.29	.25
12773	CD4018	16	Presettable divide-by-N counter	.39	.35	.29
12790	CD4019	16	Quad AND/OR select gate	.29	.25	.15
12802	CD4020★	16	14-stage binary/ripple counter	.45	.39	.35
12829	CD4021	16	8-stage static shift register	.35	.29	.19
12845	CD4023	14	Triple 3-input NAND gate	.25	.19	.12
12853	CD4024★	14	7-stage binary counter	.35	.29	.25
12870	CD4025	14	Triple 3-input NOR gate	.29	.25	.19
12888	CD4027★	16	Dual JK master-slave flip-flop	.25	.19	.17
12909	CD4028	16	BCD-to-decimal decoder	.29	.25	.22
12925	CD4029★	16	Presettable up/down counter	.49	.45	.39
12941	CD4030	14	Quad EXCLUSIVE-OR gate	.35	.29	.25
12950	CD4040★	16	12-stage binary/ripple counter	.39	.35	.29
12984	CD4042	16	Quad clocked D latch	.35	.29	.25
12992	CD4043	16	Quad NOR R-S latch tri-state	.39	.35	.29
13004	CD4044	16	Quad 3-state NAND R-S latch tri-state	.49	.45	.39
13012	CD4046★	16	Micropower phase-locked loop	.49	.45	.39
13039	CD4047★	14	Monostable/astable multivibrator	.59	.49	.39
13055	CD4049★	16	Hex/buffer/converter (inverting)	.25	.19	.17
13071	CD4050★	16	Hex/buffer/converter (N-inverting)	.25	.19	.17
13098	CD4051★	16	Single 8-channel multi./demultiplexer	.45	.39	.35

CD4000 Series (Continued) — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99	100
13119	CD4052★	16	Diff. 4-channel multi./demultiplexer	$.45	$.39	$.35
13127	CD4053★	16	Triple 2-channel multi./demultiplexer	.45	.39	.29
13143	CD4059	24	Program divide-by-N counter	2.49	2.09	1.89
13151	CD4060	16	14-stage ripple-carry binary	.49	.45	.29
13186	CD4066★	14	Quad bilateral switch	.35	.29	.25
13215	CD4067	24	16-channel analog multi/demultiplexer	1.75	1.55	1.35
13223	CD4068	14	8-input NAND gate	.25	.19	.10
13231	CD4069★	14	Hex inverter (74C04)	.25	.19	.17
13258	CD4070	14	Quad EXCLUSIVE-OR gate (74C86)	.25	.19	.15
13274	CD4071	14	Quad 2-input OR gate	.25	.19	.17
13338	CD4077	14	Quad EXCLUSIVE-NOR gate	.29	.25	.17
13346	CD4078	14	8-input NOR gate	.25	.19	.10
13354	CD4081★	14	Quad 2-input AND gate	.25	.19	.17
13400	CD4093★	14	Quad 2-input NAND Schmitt trigger	.29	.25	.22
13426	CD4094	16	8-stage shift-and-store bus register	.49	.45	.39
13434	CD4098	16	CMOS/MOS dual mono. multivibrator	.49	.45	.39
13442	CD4099	16	8-bit addressable latch	.49	.45	.39
44257	CD40106★	14	Hex inverter Schmitt trigger (74C14)	.39	.35	.29
13469	CD4503	16	Tri-state hex buffer (74C367) 80C97	.49	.45	.39
13485	CD4510	16	BCD up/down counter	.69	.59	.49
13493	CD4511★	16	BCD to 7-seg. latch/decoder/driver	.69	.59	.49
13514	CD4512	16	8-channel data selector	.59	.49	.45
13522	CD4514	24	4-bit latch/4-16 line decoder	.89	.79	.69
13531	CD4515	24	4-bit latch/4-16 decoder	.99	.89	.79
13549	CD4516	16	Binary up/down counter	.49	.45	.39
13565	CD4518★	16	Dual BCD up counter	.49	.45	.39
13581	CD4520	16	Dual binary up counter	.45	.39	.35
13590	CD4522	16	Program. BCD divide-by-N counter	.49	.45	.25
13602	CD4526	16	Divide-by-N counter (binary)	.69	.59	.49
13611	CD4528★	16	Dual monostable multivibrator	.69	.59	.49
13653	CD4538★	16	Dual precision monostable multivibrator	.49	.45	.39
13688	CD4541	14	Oscillator/programmable timer	.49	.45	.39
13696	CD4543	16	BCD to 7-segment decoder (LCD)	.69	.59	.49
13709	CD4553	16	3-digit BCD counter	2.95	2.75	2.49
13725	CD4556	16	Dual binary 1 of 4 decoder inverter	.49	.45	.29
13768	CD4584★	14	Hex Schmitt trigger (74C14) 40106	.39	.35	.29
13784	CD4585	16	4-bit comparator (MC14585BCP)	.59	.49	.29
93251	DL131D	—	Motorola CMOS Logic Data Book	7.95	6.95	5.95

Part No.	Description	See page 21 for details	1-4	5-9
84970	300 pc. CD4000 series IC kit	$101 Value	$84.95	$76.95
130403	Refill package for 84970 kit (300 pcs.)		69.95	62.95

Harris/Intersil Series — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
43748	7106CPL	40	3 1/2-digit LCD single-chip A/D converter	$2.75	$2.39
43756	7107CPL	40	3 1/2-digit LED single-chip A/D converter	2.75	2.39
43764	7109CPL	40	12-bit A/D converter	5.95	5.39
43801	7217AIPI	28	4-digit LED up/down counter (com. cathode)	8.95	7.95
43828	7218CIJI	28	8-digit univ. LED drive (com. anode)	6.95	6.25
51140	7555IPA	8	CMOS timer (555 replacement)	.59	.49
51158	7556IPD	14	CMOS timer (556 replacement)	1.19	.89
51174	7660CPA	8	CMOS volt converter (+5 to ± 5V)	1.19	1.09
51879	8038CCPD	14	Waveform generator/volt control OSC	3.49	3.19

Motorola Series — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
25435	MC846P	14	Quad 2-input gate	$1.95	$1.75
24942	MC1350P	8	Video IF amp (12V operation)	.65	.55
24969	MC1377P	20	Color TV RGB to PAL/NTSC encoder	1.95	1.25
14912	MC1408-6	16	8-bit D to A converter (DAC0806LCN)	1.49	1.29
14939	MC1408-7	16	8-bit D to A converter (DAC0807LCN) Closeout		1.25
14947	MC1408-8	16	8-bit D to A converter (DAC0808LCN)	1.49	1.29
118578	MC1495L	14	Linear four quadrant multiplier	10.95	8.95
23211	MC1496P	14	Balanced modulator/demodulator (LM1496N)	.89	.79

We carry major manufacturers – call for pricing on quantities over 500.

Motorola Series (Continued) — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
25128	MC1648P	14	Voltage controlled oscillator	$3.95	$3.59
25144	MC3340P	8	Electronic attenuator	1.29	.75
25195	MC3470P	18	Floppy disk read amp system	.69	.39
25216	MC3479P★	16	Biphase stepper motor driver	4.95	4.49
25232	MC3486P	16	Quad EIA-422/423 line rec. with 3-state outputs	.69	.59
25259	MC3487P	16	Quad EIA-422 line driver with 3-state outputs	.69	.59
25267	MC4024P	14	Dual volt control multivibrator (11C24)	1.25	.99
25275	MC4044P	14	Frequency phase detector (11C44)	7.95	5.95
25021	MC14411P	24	Bit rate frequency generator	5.95	5.39
25064	MC14490P	16	Hex contact bounce eliminator	3.95	3.59
25072	MC14495P	16	BCD to 7-seg. latch/decoder/driver	3.25	2.79
108935	MC145026P	16	CMOS remote control encoder	.89	.79
108943	MC145027P	16	CMOS remote control decoder (5-bit)	.89	.79
108951	MC145028P	16	CMOS remote control decoder (9-bit) Closeout		.95
25081	MC145106P	18	CMOS phase locked loop freq. synthesizer	2.25	1.75
118586	MC145151P	28	Parallel input PLL freq. synthesizer	8.95	6.95
25099	MC145406P	16	RS232-C/V.28 driver/rec. (CMOS)	1.59	1.39
108960	MC145407P	20	CMOS triple single ended transmitter	2.95	2.25
25101	MC146818	24	Real time clock plus RAM	3.25	2.95
119829	DL128D	—	Motorola Linear/Interface IC Book	23.95	21.49

Signetics Series — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
27713	N8T97	16	High speed tri-state hex buffer	$.49	$.39
27844	N82S23	16	256-bit PROM open collector	2.25	1.95
27748	N82S100	28	Field prog. logic array (16x48x8 tri-state)(3014229-00)	8.95	7.95
27764	N82S123	16	256-bit PROM (32x8 tri-state)	1.29	1.19
27772	N82S126	16	1024-bit PROM (256x4 open collector)	1.49	1.29
27781	N82S129	16	1024-bit PROM (256x4 tri-state)	1.95	1.75
27799	N82S131	16	2048-bit PROM (512x4 tri-state)	2.95	2.75
27801	N82S137	18	4096-bit PROM (1024x4 tri-state)	2.19	1.95
27810	N82S181	24	8192-bit bipolar PROM (1024x8 tri-state)	4.25	3.95
27828	N82S185	18	8192-bit PROM (2048x4 tri-state)	2.95	2.75
27836	N82S191	24	16,384-bit PROM (2048x8 tri-state)	4.95	3.95
31798	SCN2681A	40	Dual asynch. receiver/transmitter (DUART)	6.95	5.95

Linear Series — Package (see page 11)

Part No.	Product No.	Pins	Description	1-9	10-99	100
23051	LH0002CN	10	Current amplifier	$7.95	$6.95	$5.95
27852	OP07★	8	Ultra-low-offset-voltage op amp.	1.09	.99	.89
120715	LM10CN	8	Op amp and voltage reference	4.95	4.49	3.75
23106	LM10CLN	8	Low voltage (1.1 volt) op amp.	2.75	2.49	1.95
25751	MF10CN	20	General purpose dual active filter	3.25	2.75	2.25
120723	LM12CLK	TO-3/4	150W op amp.	25.95	22.95	19.95
16301	DS0026CN	8	Dual mos clk. driver (5MHz) 20V out.	1.49	1.25	.75
107094	LM34CZ	TO-92	Precision Fahrenheit temp. sensors	4.19	3.95	3.75
107107	LM35CZ	TO-92	Precision Centigrade temp. sensors	4.19	3.95	3.75
33161	TL062CP	8	Low-power JFET op amp. (VCC 8, pin)	.69	.59	.39
33179	TL064CN	14	Low-power JFET-input op amp.	.79	.69	.59
23069	LH0070-OH	TO-5/3	Precision BCD buffered refer.	4.95	4.49	2.25
33187	TL071CP	8	Low noise JFET op amp.	.59	.49	.45
33195	TL072CP★	8	Low noise JFET dual op amp.	.59	.49	.45
33216	TL074CN★	14	Low noise JFET quad op amp.	.69	.59	.49
33232	TL081CP	8	JFET-input op amp.	.49	.45	.39
33241	TL082CP★	8	JFET-input dual op amp.	.49	.45	.39
33267	TL084CN★	14	JFET-input quad op amp.	.69	.59	.49
24811	MAX232CPE★	16	Dual RS232 receiver/transmitter	1.75	1.55	1.35
143917	TLC272CP	8	LinCMOS™ precision dual op. amp.	1.09	.99	.79
23384	LM301H	TO-5/8	Improved op amp.	.79	.69	.49
23392	LM301N★	8	Improved op amp.	.45	.39	.35
23413	LM305H	TO-5/8	Positive volt regulator (4.5V-40V)	.69	.59	.39
23430	LM307N★	8	Op amp. (Advan LM741CN) (2-2809)	.59	.49	.35
120774	LM308AN	8	Precision op amp.	.99	.89	.69
23456	LM308H	TO-5/8	Precision op amp.	.69	.59	.45
23464	LM308N★	8	Precision op amp.	.59	.49	.45
23499	LM309K★	TO-3/2	5V 1A reg. (0°C to +125°C) (LM109K)	3.49	3.25	2.95
23510	LM310N	8	Non-invert. op amp./volt follower	1.29	1.19	1.09

Linear Series (Continued) — Package (see page 11)

Part No.	Product No.	Pins	Description	1-9	10-99	100
23528	LM311N★	8	Voltage comparator	$.45	$.39	$.29
143925	LM313H	2	Reference diode	8.95	7.95	6.95
23544	LM317K	TO-3/2	1.5A adj. pos. reg. (1.2V-37V)	2.19	1.95	1.75
23552	LM317LZ★	TO-92	100mA adj. pos. reg. (1.2V-37V)	.49	.45	.35
23579	LM317T★	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	.49	.45	.39
23608	LM318N★	8	Precision hi-speed op amp.	.69	.59	.49
23632	LM319N	14	Hi-speed dual comparator	.89	.79	.69
23667	LM323K★	TO-3/2	5V 3A positive reg.	2.95	2.75	2.55
23683	LM324N★	14	Low power quad op amp. (ULN4336)	.35	.29	.25
23721	LM331N	8	Precis. volt to freq. converter(150ppm/°C)	2.95	2.75	2.25
23739	LM334Z	TO-92	Adjust current source (LM234Z3)	.99	.89	.79
143870	LM335AH	TO-5/3	Precision temperature sensors	8.95	7.95	6.95
120820	LM335AZ	TO-92	Precision temperature sensor	3.95	3.59	2.49
23755	LM335Z★	TO-92	Precision temperature sensor	1.19	1.09	.99
23771	LM336Z★	TO-92	Voltage reference (2.5V)	.79	.69	.49
23798	LM337K	TO-3/2	1.5A/3 term. adj. neg. reg.	4.25	3.95	3.59
23819	LM337T★	TO-220/3	1.5A/adj. neg. reg. (-1.2V-37V)	.89	.79	.69
23835	LM338K★	TO-3/2	5A adj. pos. reg. (1.2V-32V)	4.95	4.49	3.95
143888	LM339AN	14	Low-power, low-offset, volt quad comparator	.69	.59	.49
23851	LM339N★	14	Quad comparator	.35	.29	.25
23907	LM346N	16	Programmable quad op amp.	.89	.79	.49
22904	LF347N★	14	Quad JFET input op amp. (wide band)	.69	.59	.49
23915	LM348N★	14	Quad 741 op amp.	.49	.45	.39
23931	LM350K	TO-3/2	3A/3 term. adj. pos. reg. (1.2V-33V)	3.95	3.59	3.25
23940	LM350T★	TO-220/3	3 amp. adj. power regulator	2.49	2.25	1.75
22912	LF351N★	8	BIFET op amp.	.59	.49	.45
22939	LF353N★	8	Dual BIFET op amp. (comp. w/ TL082CP)	.59	.49	.39
22955	LF355N	8	JFET input op amp. low sup. cur.	.79	.69	.59
22971	LF356N★	8	JFET input op amp. (wide band)	.89	.79	.69
22998	LF357N	8	JFET input op amp. (wide band decom.)	.89	.79	.69
120862	LM358AN	8	Low power dual op amp (elect improv.)	.69	.59	.49
23966	LM358N★	8	Low power dual op amp.	.39	.35	.29
23982	LM359N	14	High speed norton op amp.	Closeout		.99
23991	LM360N	8	High speed diff. comparator	1.75	1.49	.99
24002	LM361N	14	High speed diff. comparator	2.29	2.09	1.49
24029	LM373N	14	AM/FM/SSB strip	Closeout		1.49
24037	LM380N★	14	2-watt audio power amp.	.99	.89	.79
24088	LM383T	TO-220/5	7-watt audio high power amp.	1.95	1.75	1.49
24096	LM384N	14	5-watt audio amp.	2.09	1.95	1.75
120871	LM385BZ-1.2	TO-92	Micropower voltage ref. diode (1.2V)	1.95	1.75	1.25
120889	LM385BZ-2.5	TO-92	Micropower voltage ref. diode (2.5V)	1.29	1.19	.99
24109	LM385Z	TO-92	Micropower voltage ref. diode (2.5V)	.79	.69	.49
24117	LM385Z1.2	TO-92	Micropower voltage ref. diode (1.2V)	.99	.89	.59
24125	LM386N-1★	8	Low voltage audio amp. 250mW/6V	.39	.35	.29
24133	LM386N-3★	8	Low voltage audio amp. 500mW/9V	.69	.59	.49
24150	LM387N	8	Low noise dual pre-amp.	1.95	1.75	1.49
24213	LM391N-100	16	Audio power driver (±50V or +100V)	2.49	2.25	1.95
24281	LM393N★	8	Dual comparator	.29	.25	.22
23000	LF398N	8	Sample and hold circuit	1.59	1.45	1.25
24301	LM399H	TO-5/4	Temp. comp prec. ref. (2 ppm/°C)	3.59	3.25	2.95
23018	LF411CN	8	Low offset drift JFET input op amp.	.89	.79	.69
119950	LF412ACN	8	Low offset & drift dual JFET input op amp.	2.95	2.75	2.25
23026	LF412CN	8	Low offset drift JFET input dual op amp.	1.29	1.19	.89
33347	TL431CLP	TO-92	Program precision reference	.39	.35	.29
106681	LF442CN	8	Dual low power JFET input op amp.	Closeout		.69
33355	TL494CN	16	Control. ckt. pulse width modulated	1.09	.99	.89
27422	LM555CN★	8	Timer (MC1455P/NE555V)	.29	.25	.22
126797	LMC555CN	8	CMOS 555 timer	.89	.79	.69
34930	XRL555★	8	Micro power 555 timer	.79	.69	.59
24328	LM556N★	14	Dual 555 timer (MC3456P)	.45	.39	.35
27457	NE558N	16	Quad timer (NE558C)	.79	.69	.39
27473	NE564N	16	High freqency phase locked loop	.99	.89	.79
24352	LM565N★	14	Phased locked loop	1.69	1.49	1.29
24379	LM566CN★	8	Function generator (VCO)	.99	.89	.79
24395	LM567V★	8	Tone decoder	.49	.45	.39

TO-3 package	TO-5 package	TO-92 package	TO-220 package	DIP package
2 or 4-pin	3, 4, 8 or 10-pin	3-pin	3, 5 or 11-pin	2, 8, 10, 14, 16, 18, 20 or 28-pin

Linear Series (Continued) — Package (see above)

Part No.	Product No.	Pins	Description	1-9	10-99	100
27481	NE570N	16	Compander, trunk	$2.95	$2.75	$2.25
27490	NE571N	16	Compander, subscriber	2.75	2.49	1.75
144004	LM629N-8	28	Precision motion controller	49.95	46.95	43.95
143976	LMC660CN	14	CMOS quad operational amp.	2.09	1.95	1.75
120926	LM675T	TO-220/5	Power op amp.	6.95	6.25	5.49
24441	LM710N	14	Voltage comparator	.29	.25	.12
24459	LM723CH	TO-5/10	Voltage regulator (2V-37V)	.99	.89	.49
24467	LM723CN★	14	Voltage regulator (2V-37V)	.39	.35	.29
24483	LM725CN	8	Instrumentation op amp.	2.75	2.49	1.75
24491	LM733CN	14	Differential amp.	.69	.59	.49
24521	LM741CH	TO-5/8	Op amp.	.99	.89	.79
24539	LM741CN★	8	Op amp. (ULN2151)	.29	.25	.22
24512	LM741-14N	14	Op amp. (TL3741C)	.49	.45	.29
24563	LM747CN★	14	Dual 741 op amp.	.49	.45	.39
143909	TLC783CKC	TO-220/3	High-volt adjustable regulator	2.95	2.75	2.49

National Semiconductor LM837N Low Noise Quad Operational Amplifier

- High slew rate: 10 V/µs (typ), 8 V/µs (min)
- Wide gain bandwidth product: 25 MHz (typ), 15 MHz (min)
- Power bandwidth: 200 kHz
- High output current: ±40 mA
- Excellent output drive performance: >600Ω
- Low input noise voltage: 4.5 nV / √Hz
- Low total harmonic distortion: 0.0015%

Part No.	Product No.	Pins	Description	1-9	10-99	100
143896	LM837N	14	Low-noise quad operational amp.	$1.95	$1.75	$1.49
146464	TEA1007	8	Phase control	4.95	4.49	3.95
32889	TDA1170S	12	TV vertical deflection system	4.95	4.49	3.95
119706	LM1203N	28	RGB video amp system	2.49	2.25	1.95
23131	LM1458N★	8	Dual op amp. (RC4558)	.39	.35	.29
23157	LM1488N★	14	Quad line driver RS232 (75188)	.39	.35	.29
16361	DS14C88N	14	Quad CMOS line driver (RS232)	.89	.79	.69
23181	LM1489N★	14	Quad line rec. RS232 (75189)	.39	.35	.29
16379	DS14C89N	14	Quad CMOS line rec. (RS232)	.89	.79	.69
23211	LM1496N	14	Balanced mod./demodulator (MC1496P)	.89	.79	.69
120951	LM1830N	14	Fluid detector	2.95	2.75	2.49
23237	LM1871N★	18	Radio control encoder/trans.	3.95	3.59	2.25
23270	LM1875T	TO-220/5	20-watt power audio amp.	2.25	1.95	1.75
23288	LM1877N-9	14	Dual power audio amp.	2.25	1.95	1.49
107140	LM1881N	8	Video synchronous separator	2.75	2.49	2.25
34260	ULN2001	16	Hi-volt./curr. darl. transistor array	.79	.69	.39
32897	TDA2002V	TO-220/5	8-watt audio high power amp.	1.95	1.75	1.55
34278	ULN2003A★	16	Hi-volt/curr. darl. transistor array	.59	.49	.45
34294	ULN2004A	16	Hi-volt/curr. darl. trans. array (MC1416P)	.59	.49	.45
34972	XR2206★	16	Monolithic function generator	3.19	2.95	2.75
34999	XR2211	14	FSK demodulator/tone decoder	1.79	1.59	1.39
107211	LM2575T-5	TO-220/5	1A step-down volt regulator	3.59	3.25	2.49
39562	26LS29	16	Quad tri-state sgl. end RS423 line driv.	1.29	1.19	.89
39571	26LS30	16	Dual diff RS422 party line Qd RS423 line driv.	2.19	1.95	1.75
39589	26LS31	16	Quad diff line driver	.79	.69	.49

National Semiconductor DS26C32ATN Quad Differential Line Receiver

- CMOS design for low power
- Typical propagation delays: 19 ns
- Inputs won't load line when V_{CC} = 0V
- Typical input hysteresis: 60 mV
- ±0.2V sensitivity over input common mode voltage range
- TRI-STATE outputs for connection to system buses
- Meets requirements of EIA standard RS422
- Mil-Std 883C compliant

Part No.	Product No.	Pins	Description	1-9	10-99	100
144021	DS26C32ATN	16	Quad differential line receiver	$2.19	$1.95	$1.75

Linear Series (Continued) — Package (see above)

Part No.	Product No.	Pins	Description	1-9	10-99	100
39600	26LS32	16	Quad diff line receiver	$.79	$.69	$.59
39626	26LS33	16	Quad diff line receiver (O.C.)	.69	.59	.39
34315	ULN2803A	18	Hi-volt. hi-curr. darl. transis. array	.99	.89	.79
23296	LM2901N	14	Quad comp. (LP) MC3302P	.29	.25	.12
57007	LM2902N	14	Low power quad op amp.	.69	.59	.49
23309	LM2903N	8	Low pwr. low offset volt dual cmpr.	Closeout		.29
123625	LM2907N-8	8	Frequency to volt converter	2.49	2.25	1.95
23317	LM2907N★	14	Frequency to volt converter	1.95	1.75	.99
23350	LM2917N-8	8	Frequency to volt converter (CS2917)	1.75	1.55	1.35
23341	LM2917N-14	14	Frequency to volt converter (CS2917)	.99	.89	.69
143933	LM2925T	TO-220/5	Low dropout regulator w/ delayed reset	1.95	1.75	1.49
107166	LM2936Z-5	TO-92	Ultra-low quiescent current 5V reg.	1.29	1.19	.89
107182	LM2940CT-5	TO-220/3	5V 1A low dropout reg. (max. 45 V_{in})	1.29	1.19	1.09
23376	LM2941T	TO-220/5	1A low dropout adjustable regulator	1.95	1.75	1.25
107238	LM3302N	14	Low pwr. low offset volt quad cmpr.	.39	.35	.25
31974	SG3524	16	Regulating pulse width modulator	.89	.79	.69
144039	DS3695N	8	Multi-point RS485/RS422 trans./repeater	2.09	1.95	1.75
126834	LM3876T	TO-220/11	40W high perf. audio amp. with mute	5.95	5.39	4.95
24168	LM3900N★	14	Quad amp. (CA3401)	.69	.59	.49
24184	LM3905N	8	Precision timer	.89	.79	.59
24192	LM3909N★	8	LED flasher/oscillator	1.19	1.09	.99
24221	LM3911N	8	Temperature controller	Closeout		3.95
24230	LM3914N★	18	Bar-graph display driver	1.75	1.55	1.35
24256	LM3915N★	18	3 DB steps bar-graph disp. driver	1.75	1.55	1.35
24272	LM3916N	18	VU meter display driver	2.25	1.95	1.75
29356	RC4136N★	14	Quad op amp (XR4136)	.89	.79	.69
29372	RC4151NB	8	Volt to freq. converter (XR4151)	1.19	1.09	.99
27385	NE5532★	8	Dual low-noise op amp.	.69	.59	.49
27406	NE5534★	8	Low noise op amp.	.69	.59	.49
143941	LM6261N	8	High speed operational amp.	4.95	4.49	3.95
144055	LM6321N	8	High speed buffer	7.95	6.95	5.95
143950	LM6361N	8	High speed operational amp.	2.95	2.75	2.49
143984	LMC6484IN	14	CMOS quad rail-to-rail I/O op. amp.	6.49	5.95	5.39
143992	LMC7660IN	8	Switched capacitor volt converter	1.95	1.75	1.49
33478	TL7705ACP	8	-.3 to 10V supply volt supervisor	.89	.79	.59
51182	78L05★	TO-92	5V pos. voltage regulator (100mA)	.25	.22	.19
51203	78L12	TO-92	12V pos. voltage regulator (100mA)	.25	.22	.19
51246	7805K★	TO-3/2	5V 1A pos. voltage reg. (LM340K-5)	1.69	1.49	1.29
51318	7812K★	TO-3/2	12V 1A pos. voltage reg. (LM340K-12)	1.69	1.49	1.29

UNITRODE 7815K 15V 1A Positive Voltage Regulator

The 78XX series of three terminal voltage regulators is available with 5V, 12V and 15V fixed output voltages making them useful in a wide range of applications.
- Output current in excess of 1.0A • Internal thermal overload protection • No external components required
- Output transistor safe area protection
- Internal short circuit current limit • Voltage range: 15V

Part No.	Product No.	Pins	Description	1-9	10-99	100
51369	7815K	TO-3/2	15V 1A pos. voltage reg. (LM340K-15)	$1.25	$.99	$.75
51262	7805T★	TO-220/3	5V 1A pos voltage reg. (LM340T-5)	.39	.35	.29
51297	7806T★	TO-220/3	6V 1A pos. voltage reg. (LM340T-6)	.39	.35	.29
51300	7808T★	TO-220/3	8V 1A pos. voltage regulator	.39	.35	.29
51334	7812T★	TO-220/3	12V 1A pos. voltage regulator	.39	.35	.29
51377	7815T★	TO-220/3	15V 1A pos. voltage regulator	.39	.35	.29
51406	7818T	TO-220/3	18V 1A pos. voltage regulator	.39	.35	.25
51414	7824T	TO-220/3	24V 1A pos. voltage regulator	.39	.35	.29

Part No.	Description	See page 21 for details	1-4	5-9
84988	385 pc. Linear IC kit	$183 Value	$159.95	$143.95
130411	Refill package for 84988 (385 pcs.)		144.95	129.95

We carry major manufacturers – call for pricing on quantities over 500.

Linear Series (Continued) Package (see page 11)

Part No.	Product No.	Pins	Description	1-9	10-99	100
51238	78S40	16	1.5 amp switching reg. (1.25V-40V)	$.99	$.89	$.69
51422	79L05	TO-92	5V neg. voltage regulator (100mA)	.35	.29	.25
51431	79L12	TO-92	12V neg. voltage regulator (100mA)	.35	.29	.25
135159	79M12CT	TO-220/3	12V neg. voltage regulator (500mA)	.39	.35	.19
51457	7905T★	TO-220/3	5V 1A neg. voltage regulator	.39	.35	.29
51481	7912T★	TO-220/3	12V 1A neg. voltage regulator	.39	.35	.29
51502	7915T★	TO-220/3	15V 1A neg. voltage regulator	.39	.35	.29
51879	8038CCPD	14	Precision wave form generator	3.49	3.19	2.75
23114	LM13600N	16	Dual transconductance amp.	.99	.89	.59
144012	LMD18200T	11	3A, 55V H-Bridge	19.95	17.95	15.95
144047	LMD18201T	11	3A, 55V H-Bridge	18.95	16.95	14.95
143968	LM18293N	16	Four channel push-pull driver	3.95	3.59	3.25
50825	75110	14	Dual line driver (12mA cur. switch)	.29	.25	.12
50833	75113	16	Dual diff. line driver with 3-state out	.99	.89	.59
50876	75150	8	Dual line driver (RS232)	.69	.59	.29
50884	75154	16	Quad line receiver (9617)	.89	.79	.59
50892	75160	20	Octal interface bus transceiver	.89	.79	.49
50921	75172	16	Quadruple differ. line driver	1.75	1.55	1.35
50930	75173	16	Quadruple differ. line receiver	2.95	2.75	2.55
50948	75174	16	Quad diff. RS422 line dvr. with 3-state out	1.29	1.19	1.09
50956	75175	16	Quad diff. EIA 422A/423A line rec.w/3-st. out	1.29	1.19	1.09
50964	75176★	8	Differential bus transceiver	.99	.89	.79
16424	75182	14	Dual line receiver (DS8820N)	1.29	1.19	1.09
16432	75183	14	Dual differ. line driver (DS8830N)	1.29	1.19	1.09
23157	75188	14	Quad line driver RS232 (LM1488N)	.39	.35	.29
23181	75189	14	Quad line rec. RS232 (LM1489N)	.39	.35	.29
51027	75451	8	Dual peripheral AND driver	.35	.29	.19
51035	75452	8	Dual peripheral NAND driver	.45	.39	.35
51051	75453	8	Dual peripheral OR driver	.49	.45	.39
51123	75491	14	Quad seg. driver for LED readout	.99	.89	.59
51131	75492	14	Hex digit driver	1.19	1.09	.99

Linear Series SOIC Package

Part No.	Product No.	Pins	Description	1-9	10-99
87951	TL084CD	14	Gen. purpose BIFET quad op amp.	$.75	$.65
106147	MAX232CWE	16	+5V powered, dual RS232 transmitter/receiver	2.09	1.75
86721	LM324D	14	Low power quad op amp.	.49	.39
86748	LM339D	14	Quad comparator	.29	.15
86781	LM386M-1	8	Low voltage audio amp 250W/6V	Closeout	.19
128274	CLC430AJE	8	Quad, wideband, 100MHz, monolithic	3.95	3.59
86799	LM555CM	8	Timer (NE555D)	.39	.29
86801	LM556D	14	Dual 555 timer	.59	.29
86810	LM741D	8	Compensated op amp.	Closeout	.15
86836	LM1458D	8	Dual comp. op amp.	.29	.15
86844	LM1488D	14	Quad line driver RS232	Closeout	.29
86852	LM1489D	14	Quad line receiver RS232	.49	.39
86861	ULN2003AD	16	Hi-volt hi-curr. darlington transistor array	.69	.59

Maxim Linear Series Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
142535	MAX202CPE	16	+5V RS232 transceiver with 0.1µf capacitors	$2.75	$2.49
106139	MAX231CPD	14	+5V and +12V powered, dual RS232 transmitter/receiver	Closeout	.99
24811	MAX232CPE★	16	+5V powered, dual RS232 transmitter/receiver (0°C to +70°C)	1.75	1.55
106147	MAX232CWE	16 (SOIC)	+5V powered, dual RS232 transmitter/receiver	2.09	1.75
106155	MAX232EPE	16	+5V powered, dual RS232 transmitter/receiver (-40°C to +85°C)	2.95	2.75
106163	MAX233CPP	20	+5V powered, dual RS232 transmitter/receiver (no ext. components)	5.39	4.75
106171	MAX235CPG	24	+5V powered, five RS232 transmitter/receiver (no ext. components)	7.95	5.95
106180	MAX238CNG	24	+5V powered, quad RS232 transmitter and receiver	4.95	4.49
142551	MAX333CPP	20	Precision, quad, SPDT, CMOS analog switch	5.49	4.95
142543	MAX667CPA	8	+5V / programmable low-dropout voltage regulator	4.95	4.49

Maxim Linear Series (Continued) Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
106219	MAX690CPA	8	Microprocessor watchdog/battery switchover/reset generator	$4.49	$3.95
106227	MAX691CPE	16	Microprocessor watchdog/battery switchover/reset generator	5.49	4.25
142560	MAX695CPE	16	Microprocessor supervisory circuit	5.95	5.39
106260	MAX1232CPA	8	Microprocessor monitor	2.19	1.75

MAXIM MAX706CPA Low-Cost µP Supervisory Circuit

- Precision supply – voltage monitor: 4.40V
- 200ms reset pulse width • 200µA quiescent current
- Debounced TTL/CMOS compatible manual-reset input
- Independent watchdog timer: 1.6 sec. timeout
- Voltage monitor for power-fail or low-battery warning
- Active-low manual-reset input • Package: 8-pin plastic dip
- Temperature range: 0-70°C • Guaranteed RESET valid at Vcc = 1V
- A reset output during power-up, power-down, and brownout conditions
- A 1.25V threshold detector for power-fail warning, low-battery detection, or for monitoring a power supply other than +5V
- Applications: computers, controllers, intelligent instruments, critical µP power monitoring, automotive systems

Part No.	Product No.	Pins	Description	1-9	10-99
142578	MAX706CPA	8	Low-cost µP supervisory circuit	$4.95	$4.49

RCA Linear Series Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
12061	CA3028B	TO-5/8	Differential/cascade amplifier	Closeout	$3.75
12079	CA3046N	14	NPN transistor array (ULN2046)	.35	.19
12116	CA3080E	8	Op transconductance amp.	.59	.49
12124	CA3081N	16	Com. emitter NPN array (ULN2081)	.49	.29
12159	CA3086N	14	Transistor array NPN (ULN2086)	.49	.39
12183	CA3130E	8	CMOS op amp.	1.29	1.09
12204	CA3140E	8	Bi-MOS op amp.	.59	.49
12239	CA3161E	16	BCD to 7-seg. decoder driver	1.75	1.25
12247	CA3162E	16	Dual slope & rate analog/dig. convert	6.95	6.25
24168	CA3401N	14	Quad amp (LM3900N)	.69	.59

Z80 Series Microprocessors Dual-In-Line Package

Part No.	Product No.	Pins		Description	1-9	10-99
35561	Z80	40	2.5	CPU (MK3880N/780C)	$1.39	$1.19
35570	Z80-CTC	28	2.5	Counter timer circuit (MK3882)	1.39	1.19
35588	Z80-PIO	40	2.5	Parallel I/O interface controller	.89	.69
35596	Z80A★	40	4	CPU (MK3880N-4/780C-1)	1.75	1.25
35609	Z80A-CTC	28	4	Counter timer circuit (MK3882-4)	1.75	1.25
35625	Z80A-DART	40	4	Dual asynchronous rec./transmitter	2.95	2.75
35641	Z80A-PIO★	40	4	Parallel I/O interf. contr. (MK3881-4)	1.49	1.29
35668	Z80A-SIO/0	40	4	Serial I/O (TxCB & RxCB bond.) MK3884-4	2.19	1.95
35684	Z80A-SIO/2	40	4	Serial I/O (lacks SYNCB) MK3887-4	1.25	.75
35705	Z80B★	40	6	CPU (MK3880N-6)	2.25	1.75
35713	Z80B-CTC	28	6	Counter timer circuit (MK3882-6)	1.95	1.25
118391	Z80H	40	8	CPU (Z0840008PSC)	1.95	1.25
35781	Z84C00-4	40	4	CPU (Z84C0004PEC) CMOS	4.25	3.75
35799	Z8530	40	2	Serial communications controller	2.95	2.25
104328	DC8321-00	—	—	Zilog MPUs and Peripherals Data Book	6.95	6.25

5000 Series and Clock Chips Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
32803	TCM5089N	16	Integrated tone dialer chip	$3.95	$3.59
26083	MM5314N	24	6-digit LED/incandes. readout clock chip	Closeout	9.95
26091	MM5321N	16	TV camera synchronous generator	7.95	5.95
26104	MM5369AA/N	8	Program. oscillator/divider (60Hz)	1.19	1.09
26171	MM5450N	40	34-segment LED display driver	2.75	2.25
25929	MK50250N	28	4/6-digit alarm with snooze clock chip	Closeout	5.95
26075	MM53130N	18	Touch tone dialer chip	6.95	4.95
26147	MM54104N	40	Speech processor chip and data	12.95	11.49
26201	MM58167AN	24	Microprocessor real time clock	6.95	4.95
26219	MM58174AN	16	Microprocessor compatible clock	Closeout	4.95
26227	MM58274N	16	Microprocessor compat. real time clock	9.95	7.95
29591	RTC58321B	16	Real time clock module (see page 17)	7.49	6.75
95530	RTC72421B	18	Real time clock module (see page 17)	6.95	6.25

JAMECO $1.39 Sale price good at this quantity only SALE Sale price to the right of banner good for that quantity, or less

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6800 Series Microprocessors — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
43481	6800	40	8-bit MCU	$1.95	$1.49
43502	6802★	40	MPU 8-bit with clock and RAM (1MHz)	4.75	4.49
43529	6803	40	8-bit MCU with 128K RAM	4.25	3.95
43537	6808	40	8-bit MPU with clock	4.25	3.95
43545	6809E	40	MPU with external clock (1MHz)	3.95	3.59
43561	6810	24	128x8 static RAM (1MHz)	.89	.79
43596	6821★	40	Peripheral interface adapter (1MHz)	2.49	2.25
43414	68B21	40	Peripheral interface adapter (2MHz)	2.95	2.75
43617	6840	28	Programmable timer (1MHz)	2.29	2.09
43633	6850	24	Asynch. comm. int. adapter (ACIA)	1.95	1.75
25304	MC68000L8	64	MPU 16-bit (8MHz)	6.95	6.25
25291	MC68000L10	64	MPU 16-bit (10MHz)	8.95	7.95
134050	MC68HC000FN10	68/PLCC	MPU 16/32-bit (10MHz)	Closeout	3.95
118287	MC68008P8	48	MPU 8-bit (8MHz)	7.95	6.95
25347	MC68661PB	28	Enhanced prog. comm. interf. (2661-1/2) 4.9152MHz	5.95	5.39
39642	MC68661PC	28	Enhanced prog. comm. interf. (2661-3) 5.0688MHz	5.95	5.39
25355	MC68701	40	8-bit EPROM (2048 Usa) MPU w/ 128B RAM & I/O	16.95	14.95
25363	MC68705P3S	28	8-bit EPROM (1804 Usa) MPU w/ 112B RAM & I/O	13.95	11.95
25371	MC68705U3S	40	8-bit EPROM (3776 Usa) MPU w/ 112B RAM & I/O	17.95	14.95
116960	MC68HC11A1P	48	8-bit micro controller with A/D converter	13.95	12.95
108919	MC68HC705C8P	40	8-bit HCMOS MCU, 8K OTPROM, 24 I/O lines	13.95	11.95
132484	MC68HC705C8S	40	8-bit, HCMOS MCU, 8K bytes, EPROM	29.95	26.95
132530	MC68HC705J1ACP	20	8-bit, HCMOS MCU, 1240 bytes, OTPROM	2.95	2.75
108927	MC68HC705K1P	16	8-bit HCMOS MCU, 504 bytes, OTPROM, 10 I/O, timer	4.95	4.25
24897	MCM68766C35	24	8192x8 64K 350ns (25V) pin 20-output enable	3.95	2.95

See Page 78 for Motorola Microprocessors Data Books

8000 Series Microprocessors — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
51844	8031★	40	CPU with 128x8 RAM and I/O	$3.95	$3.59
51676	80C31★	40	CPU with 128x8 RAM and I/O (CMOS)	4.95	4.49
102197	8032	40	8-bit MCU 256x8 RAM	5.75	5.25
108804	80C32-1	40	8-bit MCU 256x8 RAM (CMOS)	5.95	5.25
51861	8035	40	MPU 8-bit	2.49	2.25
51959	8039	40	CPU single chip 8-bit (128 bytes RAM)	2.49	2.25
51692	80C39	40	CPU single chip 8-bit (128 bytes RAM) CMOS	3.95	3.59
51975	8048*	40	MPU 8-bit (can use for 8035)	.29	.15
51983	8049*	40	CPU single chip 8-bit (can use for 8039)	.79	.69
51991	8051AP**★	40	MCU with 128x8 RAM	3.95	2.95
52003	8052AH**★	40	CPU 8-bit 256 bytes RAM, timer/counter and I/O	5.95	5.39
52011	8052AHBASIC	40	Same as 8052AH w/ built-in BASIC interp. (Intel)	19.95	17.95
125647	80C52BASIC	40	CPU 8-bit CMOS with basic interpreter	19.95	17.95
126252	BK52	—	Basic-52 Programming Book (see pg 79)	24.95	22.49
52046	8080A	40	CPU 8-bit N-channel (1MHz)	1.95	1.25
52062	8085A★	40	CPU 8-bit N-channel (3MHz)	4.95	4.49
52071	8085A-2	40	CPU 8-bit N-channel (5MHz)	5.95	5.39
51705	80C85	40	CPU 8-bit N-channel (3MHz)(CMOS)	5.95	5.39
52097	8086	40	CPU 16-bit (5MHz)	.59	.29
52100	8086-2	40	CPU 16-bit (8MHz)	1.95	1.25
52142	8088★	40	CPU 16-bit (8-bit data bus) 5MHz	2.95	2.75
52169	8088-2	40	CPU 16-bit (8-bit data bus) 8MHz	5.95	5.39
52151	8088-1	40	CPU 16-bit (8-bit data bus) 10MHz	6.95	4.95
52257	WD8116	18	Dual baud rate clock gen. (4.91/5.06MHz)	3.95	2.75
52290	8155★	40	HMOS RAM I/O port/timer (3MHz)	4.95	4.49
52302	8155-2	40	HMOS RAM I/O port/timer (5MHz)	5.95	5.39
52193	81C55	40	256x8 RAM I/O port/timer (CMOS) 3MHz	5.25	4.75
52329	8156	40	RAM with I/O port and timer	Closeout	7.95
52450	8205	16	High speed 1 of 8 binary decoder (3205)	Closeout	3.95
52337	82C11	40	Printer adapter interface (PAI) CMOS (UM82C11)	Closeout	3.95
52468	8212	24	8-bit input/output (74S412)	3.95	3.59
52484	8216	16	Bi-directional bus driver (non-invert.)	1.95	1.75
52492	8224	16	Clock generator/driver	1.95	1.75
52505	8226	16	Bi-directional inverting bus driver	1.95	1.49
52513	8228	28	System contr./bus driver (74S428)	.69	.39
52556	8237-5	40	Program. DMA controller (UPD71037)	Closeout	.69

* 8048, 8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM
(to convert 8048 to 8035 or 8049 to 8039)   ** Tie pin 31 low to bypass the internal ROM

8000 Series Microprocessors (Continued) — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
52581	8243	24	I/O expander for 48 series	$4.95	$4.49
52610	8250A	40	Asynchronous comm. element	4.95	4.49
52628	8250B	40	ACE (IBM PC/XT software compat.)	4.95	4.49
52644	8251	28	Prog. comm. I/O (USART)	2.95	2.75
52652	8251A★	28	Prog. comm. interface (USART)	3.49	3.25
52370	82C51A	28	Prog. comm. interface (USART) CMOS	3.95	3.59
52679	8253	24	Prog. interval timer	3.95	3.25
52687	8253-5	24	Prog. interval timer (2MHz)	4.49	3.95
52388	82C53-5	24	Prog. interval timer (CMOS) 2MHz	4.95	4.49
52708	8254	24	Prog. interval timer (UPD71054)	3.95	3.59
52716	8254-2	24	Prog. interval timer (10MHz)	5.95	5.39
52396	82C54	24	Prog. interval timer (CMOS)	4.95	4.25
52409	82C54-2	24	Prog. interval timer (CMOS) 10MHz	5.95	5.39
52724	8255★	40	Prog. periph. I/O (PPI) 71055 (2MHz)	3.95	3.59
52732	8255A-5★	40	Prog. periph. I/O (PPI) 5MHz	4.95	4.49
52417	82C55A	40	Prog. periph. I/O (PPI) CMOS	3.95	3.59
52425	82C55A-5★	40	Prog. periph. I/O (PPI) CMOS (5MHz)	4.95	4.49
52759	8256	40	Multif. universal asynch. rec./trans.	Closeout	19.95
52775	8259	28	Prog. interrupt controller (UPD71059)	1.25	.99
52783	8259-5	28	Prog. interrupt controller (8259A-2)	1.89	1.69
103771	82C59-5	28	Prog. interrupt controller (CMOS)	1.25	.99
52804	8274	40	Multi-protocol serial controller (7201)	Closeout	14.95
52821	8275	40	Prog. CRT controller	11.95	9.95
52839	8279	40	Prog. keyboard/display interface	6.49	5.75
52847	8279-5★	40	Prog. keyboard/display interface (5MHz)	6.95	6.25
52855	8282	20	Octal latch (UPD71082)	4.95	4.49
52871	8284A★	18	Clock gen. and driver (UPD71084)	4.95	4.49
104045	82C84	18	Clock gen. and driver (CMOS)	Closeout	3.95
52898	8286	20	Octal bus transceiver (UPD71086)	1.95	1.75
52901	8287	20	Octal bus transceiver (inverted)	2.95	2.75
52919	8288	20	Bus controller (UPD71088)	3.95	2.95
52433	82C88-2	20	Bus controller (CMOS)	.25	.25
52927	8304	20	8-bit bi-directional transceiver	.89	.59
53006	8741	40	8-bit univ. peripheral interface (EPROM)	8.95	7.95
53014	8742	40	8-bit univ. peripheral interface	9.95	7.95
53022	8748	40	CPU 8-bit, EPROM, RAM and I/O (21V)	12.95	11.95
53031	8748H	40	CPU 8-bit, EPROM, RAM and I/O HMOS (21V)	15.95	13.95
123633	8748P	40	CPU 8-bit, PROM, RAM & I/O (one time prog.)	Closeout	8.95
53057	8749H★	40	MPU 8-bit (EPROM version 8049)	15.95	13.95
53073	8751	40	CPU w/ 4Kx8 EPROM & 128x8 RAM (3.5-8MHz)	18.95	16.95
53081	8751H★	40	CPU w/ 4Kx8 EPROM & 128x8 RAM (1.2-12MHz)	24.95	21.95
52978	87C51	40	CPU w/ 4Kx8 EPROM & 128x8 RAM(3.5-12MHz)CMOS	21.95	18.95
53090	8755	40	16K EPROM with I/O	8.95	6.95
51730	80L286-12	68/PLCC	12MHz 286 CPU	Closeout	2.95
75053	80486SX-25	168/PGA	25MHz 486SX CPU	24.95	19.95
135571	ST486DX2-66	168/PGA	33MHz 486 speed doubler CPU (SGS)	39.95	35.95
118421	80486DX2-66	168/PGA	33MHz 486 speed doubler CPU (Intel)	59.95	54.95
132708	AM486-66	168/PGA	66MHz Am486DX2 CPU (AMD)	44.95	39.95
132716	AM486-100	168/PGA	100MHz Am486DX4 CPU (AMD)	49.95	44.95
124636	Pentium® 75	296/PGA	75MHz Pentium® MPU	Closeout	79.95
125487	Pentium® 90	296/PGA	90MHz Pentium® MPU	109.95	99.95
125495	Pentium® 100	296/PGA	100MHz Pentium® MPU	124.95	119.95
130825	Pentium® 120	296/PGA	120MHz Pentium® MPU	SALE	127.95
137154	CX686-150+	296/PGA	120MHz 6x86 MPU (Cyrix)	129.95	119.95
130833	Pentium® 133	296/PGA	133MHz Pentium® MPU	SALE	129.95
137146	CX686-166+	296/PGA	133MHz 6x86 MPU (Cyrix)	129.95	124.95
130850	Pentium® 150	296/PGA	150MHz Pentium® MPU	219.95	209.95
130841	Pentium® 166	296/PGA	166MHz Pentium® MPU	SALE	175.95
140118	Pent. Pro® 150	376/PGA	150MHz Pentium Pro® MPU	SALE	249.95
140100	Pent. Pro® 200	376/PGA	200MHz Pentium Pro® MPU	SALE	569.95
140046	Pent. MMX® 166	376/PGA	166MHz Pentium MMX® MPU	SALE	179.95
140054	Pent. MMX® 200	376/PGA	200MHz Pentium MMX® MPU	SALE	299.95
142586	K6200	321/PGA	200MHz K6MMX MPU (AMD)	SALE	269.95
76654	82C206	84	DMA/interrupt/time/counter	Closeout	4.95
52521	82284	18	Clk. gen./ready interface (8MHz)	.99	.69

$89.95 Upgrade adapter – see pg 100

We carry major manufacturers – call for pricing on quantities over 100.

9000 Series Microprocessors — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
53663	9368	16	FND 70 driver/latch	$4.95	$4.49
10567	AM9513APC	40	System timing controller	34.95	29.95
53778	9601	14	Retrig. monostable multivibrator (8601)	.19	.09
53786	9602	16	Dual monostable multivibrator (8602)	.59	.39

V20 Chips — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
34340	UPD70108-5	40	(5MHz) V20 chip (replaces the 8088)	$5.95	$5.39
34358	UPD70108-8	40	(8MHz) V20 chip (replaces the 8088-2)	7.95	6.95

A/D and D/A Converters and Controllers — Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
10145	ADC0803LCN	20	8-bit A/D converter (±1/2 LSB)	$6.95	$5.95
10153	ADC0804LCN★	20	8-bit A/D converter (1 LSB)	2.29	2.09
10170	ADC0808CCN	28	8-bit A/D converter with 8-ch. analog	4.95	4.49
10188	ADC0809CCN★	28	8-bit A/D converter (8-ch. MPX)	3.49	3.25
10209	ADC0817CCN	40	8-bit A/D converter (16-ch. MPX)	8.95	7.95
10225	ADC0820CCN	20	8-bit hi-spd. A/D conv. with track/hold	6.95	6.25
116100	ADC0831CCN	8	8-bit A/D converter with multiplexer	1.95	1.75
14904	DAC0800LCN	16	8-bit D/A converter (±1 LSB)	1.79	1.49
14912	DAC0806LCN	16	8-bit D/A convtr. (±1 LSB) MC1408P6	1.49	1.29
14939	DAC0807LCN	16	8-bit D/A converter (MC1408P7) Closeout		1.25
14947	DAC0808LCN★	16	8-bit D/A converter (MC1408P8)	1.49	1.29
14963	DAC0830LCN	20	8-bit µP D/A converter (.05% Lin.)	5.95	5.39
14971	DAC0831LCN	20	8-bit µP D/A converter (.10% Lin.)	5.49	4.95
128186	DAC0832LCN	20	8-bit µP D/A conv. dbl. buff. (20% Lin.)	4.95	3.95
14980	DAC1222LCN	20	12-bit D/A converter (.20% Lin.)	7.25	6.49
14998	DAC1230LCJ	20	12-bit µP D/A converter (.012%)	9.95	7.95
16627	D765AC	40	Single/double dens. floppy dsk cont. (R6765)	.19	.09

Math Coprocessors

Part No.	Product No.		Description	1-9	10-99
51941	80387-33	68PGA	33MHz math coprocessors	$29.95	$25.95
76582	80387-40	68PGA	40MHz math coprocessors	34.95	29.95
51908	80387-16SX	68PLCC	16MHz math coprocessors	39.95	34.95
51924	80387-20SX	68PLCC	20MHz math coprocessors	44.95	39.95
76531	80387-25SX	68PLCC	25MHz math coprocessors	49.95	44.95

DIP and PLCC IC Extractors

- Sturdy gripping jaw • Size: 4.0"L x 2.0"W (both)

See page 86 for 16838 photo and new PGA Extractor.

Part No.	Product No.	Description	1-9	10-99
16838	EXD	DIP IC extractor	$1.49	$1.25
16766	ESM★	PLCC IC extractor	3.95	3.49

16766

EPROMs — Dual-In-Line Package

Part No.	Product No.	Pins	Description			1-9	10-99
37647	1702A	24	256 x 8	2K 1µs (-35V, -40V, -46V)		$4.95	$3.95
39909	2708	24	1K x 8	8K 450ns (+5V, -5V, +12V)		3.95	3.59
33566	TMS2516	24	2K x 8	16K 450ns (25V)		2.95	2.25
33591	TMS2532A	24	4K x 8	32K 450ns (21V)		5.95	4.95
33611	TMS2716	24	2K x 8	16K 450ns (+5V, -5V, +12V)		2.95	1.95
40002	2716★	24	2K x 8	16K 450ns (25V)		3.25	2.95
40011	2716-1★	24	2K x 8	16K 350ns (25V)		3.95	3.59
39706	27C16★	24	2K x 8	16K 450ns (25V) CMOS		5.95	5.25
114876	2732B	24	4K x 8	32K 450ns (12.5V)		3.95	3.59
40096	2732★	24	4K x 8	32K 450ns (25V)		4.95	4.49
40109	2732A-20★	24	4K x 8	32K 200ns (21V)		5.95	5.39
40125	2732A-25	24	4K x 8	32K 250ns (21V)		4.95	4.49
40133	2732A-45	24	4K x 8	32K 450ns (21V)		3.95	3.59
39765	27C32	24	4K x 8	32K 450ns (25V) CMOS		4.95	4.25
111721	27C32-1	24	4K x 8	32K 450ns (12.75V) CMOS		5.95	4.95
40192	2764-20★	28	8K x 8	64K 200ns (21V)		5.95	5.39
40205	2764-25★	28	8K x 8	64K 250ns (21V)		4.95	4.49
40264	2764PULL	28	8K x 8	64K 450ns (21V)		3.95	3.59
40230	2764A-20★	28	8K x 8	64K 200ns (12.5V)		3.95	3.59
40248	2764A-25★	28	8K x 8	64K 250ns (12.5V)		3.25	2.95
105304	27C64-12	28	8K x 8	64K 120ns (12.5V) CMOS		4.25	3.59
39829	27C64-15★	28	8K x 8	64K 150ns (12.5V) CMOS		3.25	2.95
74608	27C64-20	28	8K x 8	64K 200ns (12.5V) CMOS		2.95	2.75
39845	27C64-25	28	8K x 8	64K 250ns (12.5V) CMOS		2.75	2.49

EPROMs (Continued) — Dual-In-Line Package

Part No.	Product No.	Pins	Description				1-9	10-99
39992	271280TP†	28	16K x 8	128K	250ns (21V)		$2.95	$1.95
39933	27128-25★	28	16K x 8	128K	250ns (21V)		5.95	5.25
39950	27128A-15	28	16K x 8	128K	150ns (12.5V)		4.49	3.95
39968	27128A-20★	28	16K x 8	128K	200ns (12.5V)		3.25	2.75
39984	27128A-25★	28	16K x 8	128K	250ns (12.5V)		2.95	2.75
111624	27128A-30	28	16K x 8	128K	300ns (12.5V)		2.95	2.75
87935	27C128-12	28	16K x 8	128K	120ns (12.5V) CMOS		4.49	3.95
39677	27C128-15★	28	16K x 8	128K	150ns (12.5V) CMOS		3.95	3.59
101101	27C128-20	28	16K x 8	128K	200ns (12.5V) CMOS		3.49	2.75
39685	27C128-25	28	16K x 8	128K	250ns (12.5V) CMOS		2.95	2.75
40070	272560TP†	28	32K x 8	256K	200ns (12.5V)		2.95	2.25
40037	27256-15★	28	32K x 8	256K	150ns (12.5V)		5.49	4.75
40045	27256-20★	28	32K x 8	256K	200ns (12.5V)		4.49	3.95
40061	27256-25★	28	32K x 8	256K	250ns (12.5V)		3.49	3.19
40088	27256PULL	28	32K x 8	256K	200ns (12.5V)		2.95	2.25
140476	27C256-70	28	32K x 8	256K	70ns (12.5V) CMOS		5.49	4.95
112740	27C256-10	28	32K x 8	256K	100ns (12.5V) CMOS		4.49	3.95
65904	27C256-12	28	32K x 8	256K	120ns (12.5V) CMOS		3.95	3.59
39714	27C256-15★	28	32K x 8	256K	150ns (12.5V) CMOS		3.49	3.19
39722	27C256-20★	28	32K x 8	256K	200ns (12.5V) CMOS		3.39	3.09
39731	27C256-25★	28	32K x 8	256K	250ns (12.5V) CMOS		3.39	3.09
40150	27512-20	28	64K x 8	512K	200ns (12.5V)		4.95	4.49
40168	27512-25★	28	64K x 8	512K	250ns (12.5V)		3.39	3.09
131959	27C512-10	28	64K x 8	512K	100ns (12.5V) CMOS		4.19	3.75
39773	27C512-12★	28	64K x 8	512K	120ns (12.5V) CMOS		3.95	3.25
39781	27C512-15★	28	64K x 8	512K	150ns (12.5V) CMOS		3.75	3.39
39790	27C512-20	28	64K x 8	512K	200ns (12.5V) CMOS		3.49	2.95
39802	27C512-25★	28	64K x 8	512K	250ns (12.5V) CMOS		3.49	3.19
118148	27C1024-15	40	64K x 16	1024K	150ns (12.5V) CMOS		5.39	4.95
137701	27C010-45	32	128K x 8	1024K	45ns (12.5V) CMOS		5.95	5.39
146149	27C010-70	32	128K x 8	1024K	70ns (12.5V) CMOS		5.95	5.39
137699	27C010-80	32	128K x 8	1024K	80ns (12.5V) CMOS		5.75	5.25
79231	27C010-10	32	128K x 8	1024K	100ns (12.5V) CMOS		5.39	4.95
74624	27C010-12	32	128K x 8	1024K	120ns (12.5V) CMOS		4.95	4.49
39651	27C010-15★	32	128K x 8	1024K	150ns (12.5V) CMOS		4.75	4.25
39669	27C010-20	32	128K x 8	1024K	200ns (12.5V) CMOS		4.49	3.75
118156	27C2048-12	40	128K x 16	2048K	120ns (12.5V) CMOS		8.95	7.95
78852	27C020-12	32	256K x 8	2048K	120ns (12.5V) CMOS		7.95	6.95
65699	27C020-15★	32	256K x 8	2048K	150ns (12.5V) CMOS		6.95	6.25
65681	27C020-20	32	256K x 8	2048K	200ns (12.5V) CMOS		5.95	5.39
111780	27C040-10	32	512K x 8	4096K	100ns (12.5V) CMOS		10.95	9.95
102293	27C040-12★	32	512K x 8	4096K	120ns (12.5V) CMOS		9.95	8.95
85462	27C040-15	32	512K x 8	4096K	150ns (12.5V) CMOS		8.95	7.95
127933	27C4096-12	40	256K x 16	4096K	120ns (12.5V) CMOS		12.95	11.95
140003	27C080-12	32	1M x 8	8000K	120ns (12.5V) CMOS		19.95	17.95
24897	68766-35	24	8K x 8	64K	350ns (25V)			
			MCM68766C35 pin 20-output enable				3.95	2.95

†One Time Programmable See EPROM programmers on page 89

EPROM Accessories

Part No.	Product No.	Description	1-9	10-99
16820	EWC1	1.1" x .5" EPROM window covers (56 labels)	$1.95	$1.75
13864	CF2	Conductive foam (12" x 24" x .25") hard black	9.95	8.95
66042	DE1	UVP portable EPROM eraser (pg 90) SALE		49.95
15712	DE4	8-chip UV-EPROM eraser (pg 90) SALE		99.95
132468	SEP81AE	1 socket 16K-8MB E(E)PROM programmer SALE		189.95

EEPROMs — Dual-In-Line Package

Part No.	Product No.	Pins	Description		1-9	10-99
108839	24C02P	8	256 x 8	2048 bit serial (CMOS)	$.69	$.49
108847	24C04P	8	512 x 8	4096 bit serial (CMOS)	1.09	.99
40387	2816A-25★	24	2K x 8	16K 250ns (9V-15V) 5V R/W	3.49	3.25
74691	28C16A-25	24	2K x 8	16K 250ns (5V) CMOS	3.49	3.25
40416	2817A-25	28	2K x 8	16K 250ns 5V read/write	6.95	6.25
40459	2864A★	28	8K x 8	64K 250ns 5V R/W (N/C on P1)	6.95	6.25
74827	28C64A-25	28	8K x 8	64K 250ns (5V) CMOS	4.95	4.49
40475	2865A	28	8K x 8	64K 250ns 5V Rd/Wr (RDY/BSY on P1)	3.95	2.95
79249	28C65A-25	28	8K x 8	64K 250ns 5V read/write	6.95	5.95
74843	28C256-15	28	32K x 8	256K 150ns CMOS	14.95	13.95

We carry major manufacturers – call for pricing on quantities over 100.

EEPROMs (Continued)
Dual-In-Line Package

Part No.	Product No.	Pins		Description	1-9	10-99
74860	28C256-20	28	32K x 8	256K 200ns CMOS	$13.95	$11.95
74878	28C256-25	28	32K x 8	256K 250ns CMOS	12.95	11.95
42340	52B13	24	2K x 8	16K 350ns (21V)	2.75	2.25
102058	93C46	8	64 x 16	1024-bit serial (5V)	.79	.69
108855	93C56	8	128 x 16	2048-bit serial (5V)	.89	.69

PROMs
Dual-In-Line Package

Part No.	Product No.	Pins		Description	1-9	10-99
27844	N82S23	16	32 x 8	256-bit PROM (OC)	$2.25	$1.95
27764	N82S123	16	32 x 8	256-bit PROM tri-state	1.29	1.19
27772	N82S126	16	256 x 4	1024-bit PROM (OC)	1.49	1.29
27781	N82S129	16	256 x 4	1024-bit PROM tri-state	1.95	1.75
27799	N82S131	16	512 x 4	2048-bit PROM tri-state	2.95	2.75
27801	N82S137	18	1024 x 4	4096-bit PROM tri-state	2.19	1.95
27810	N82S181	24	1024 x 8	8192-bit bipolar PROM tri-state	4.25	3.95
27828	N82S185	18	2048 x 4	8192-bit PROM tri-state	2.95	2.75
27836	N82S191	24	2048 x 8	16,384-bit PROM tri-state	4.95	3.95
32774	TBP28L22N	20	256 x 8	Tri-state (74S471)	3.95	3.25
48531	74S188	16	32 x 8	Open collector (27S18)	2.95	2.75
48696	74S287	16	256 x 4	Tri-state (TBP24S10N)	2.95	2.75
48717	74S288	16	32 x 8	Tri-state (27S19/TBP18S030N)	2.49	1.95
48805	74S387	16	256 x 4	Open collector (7BP24SA10N)	2.49	1.95
48864	74S472	20	512 x 8	Tri-state high speed (27S29)	5.95	5.39
48910	74S571	16	51K x 4	Tri-state (27S13) 6305J	3.95	3.59
48928	74S573	18	1024 x 4	Tri-state (27S33)	2.95	2.25

PALs and GALs
Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99
111667	PAL16R6	20	Octal 16-input AND-OR-INVERT gate array	$.49	$.29
28020	PAL16L8	20	Octal 16-input AND-OR-INVERT gate array	.79	.69
28038	PAL16R8	20	Octal 16-input reg. AND-OR gate array	.79	.69
88399	16V8-10*	20	10ns (replaces PALs listed below) .3"W	2.25	1.95
37452	16V8-15*	20	15ns (replaces PALs listed below) .3"W	1.19	1.09
37461	16V8-25*	20	25ns (replaces PALs listed below) .3"W	1.09	.99
88292	20V8-10**	S-24	10ns (replaces PALs listed below) .3"W	2.95	2.75
38658	20V8-15**	S-24	15ns (replaces PALs listed below) .3"W	1.95	1.49
38666	20V8-25**	S-24	25ns (replaces PALs listed below) .3"W	1.55	1.35
123801	22V10-10	S-24	10ns (replaces PALs listed below) .3"W	6.95	5.95
39159	22V10-15	S-24	15ns (replaces PALs listed below) .3"W	4.49	3.95
39167	22V10-25	S-24	25ns (replaces PALs listed below) .3"W	2.95	2.75

GALs are electrically erasable PLDs that can be used in place of numerous PALs
* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6,16RP8
** Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

104651	PALs, GALs, EPROM and PROM programmer (pg 89)	SALE $649.95

LOGICAL DEVICES, INC. CUPL Software

CUPL Software is one of the worlds most popular and comprehensive PLD/FPGA Design Software systems, with over 20,000 users. CUPL is designed as a universal programmable logic development system. CUPL is a very versatile and powerful logic compiler that can be used to create simple or even very sophisticated logic designs for PLD's and FPGA's. CUPL runs either in DOS or in a DOS prompt within the Microsoft Windows® environment.

132871: CUPL Starter Kit
Supports 10 of the most popular PAL & GAL architectures (p1618, p16r4, p16r6, p16r8, p2018, p20r4, p20r6, p20r8, p20x8, g16v8).

132880: PAL Expert
Supports 75 of the most popular PAL , GAL and PROM architectures (ep3xx, ep3xxx, ep6xx, ep6xxx, g16, g20, g22, p10, p12, p14, p16, p18, p20, p22, ra5, ra8, ra9, ra10, ra11, ra12, ra13).

Part No.	Description	Wt. (lbs.)	Price
132871	CUPL starter kit (10 devices)	0.5	$79.95
132880	PAL expert (75 devices)	2.7	199.95

PEEL Devices (CMOS)
Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-99

Programmable Electrically Erasable Logic (PEEL) devices allow for superset replacement of over 40 standard 20-pin and 24-pin PLDs (PAL, GAL, EPLD, etc.). They also offer additional architectural features so more logic can be put into every design.

105953	18CV8P-25	20	PLD superset 12 config. I/O pins (8) 25ns	$2.49	$1.95
105961	18CV8P-15	20	PLD superset 12 config. I/O pins (8) 15ns	2.49	2.25
105996	22CV10AP-25	24	PLD superset 4/12 config. I/O pins (10) 25ns	3.95	3.59
106008	22CV10AP-15	24	PLD superset 4/12 config. I/O pins (10) 15ns	3.95	3.59
106016	22CV10AP-10	24	PLD superset 4/12 config. I/O pins (10) 10ns	4.95	4.25

Flash Memory
Dual-In-Line Package

Part No.	Product No.	Pins		Description	Price
129200	58257-20	28	32K x 8	200ns (12V) CMOS	$1.95
74632	28F256-20	32	32K x 8	200ns (12V) CMOS	6.95
74771	28F010-15	32	128K x 8	150ns (12V) CMOS	6.95
74780	28F010-20	32	128K x 8	200ns (12V) CMOS	5.95
74835	28F020-15	32	256K x 8	150ns (12V) CMOS	15.95

Fast SRAMs
Dual-In-Line Package

Part No.	Product No.	Pins		Description	Price
74763	ATT7C164P-15	22	16K x 4	15ns high speed CMOS Closeout	$1.95
74894	ATT7C185P-12	28	8K x 8	12ns high speed CMOS (.3"W)	3.95
109073	ATT7C199P-12	28	32K x 8	12ns high speed CMOS (.3"W)	3.95
75037	ATT7C199P-15	28	32K x 8	15ns high speed CMOS (.3"W)	3.75
93243	DL156D	—		Motorola Fast Static RAM Data Book	8.95

Static RAMs
Dual-In-Line Package

Part No.	Product No.	Pins		Description	Price
38738	2016-12	24	2K x 8	120ns (AM9128-12)	$1.49
38746	2016-20	24	2K x 8	200ns (MB8128-20)	1.25
38754	2018-35	24	2K x 8	35ns 0.3" wide	2.95
38906	2102	16	1K x 1	650ns (9102CPC)	.39
38931	2111-1	18	256 x 4	500ns (AM9111APC)	1.29
38957	2114N★	18	1K x 4	450ns (9114BPC)	1.29
38973	2114N-2	18	1K x 4	200ns (9114EPC) U214D20	1.39
38981	2114N-2L★	18	1K x 4	200ns low power	1.49
38885	21C14	18	1K x 4	200ns CMOS (21C14E4) Closeout	.25
39061	2148HN-3	18	1K x 4	55ns	1.69
40731	3341PC	16	64 x 4	64 word x 4-bit FIFO serial	4.95
25911	MK48Z02B-15	24	2K x 8	150ns (16K) zero-power RAM	9.95
42198	5101★	22	256 x 4	450ns (CMOS)	1.95
42788	6116P-1	24	2K x 8	100ns (16KB) CMOS	1.69
42796	6116P-2	24	2K x 8	120ns (16KB) CMOS	1.59
42809	6116P-3★	24	2K x 8	150ns (16KB) CMOS	1.49
42737	6116LP-1	24	2K x 8	100ns (16KB) LP CMOS	2.29
42745	6116LP-2	24	2K x 8	120ns (16KB) LP CMOS	2.19
42753	6116LP-3★	24	2K x 8	150ns (16KB) LP CMOS	2.09
42921	6264P-10	28	8K x 8	100ns (64KB) CMOS	2.75
42930	6264P-12★	28	8K x 8	120ns (64KB) CMOS	2.59
85121	6264LP-70	28	8K x 8	70ns (64KB) LP CMOS	2.95
42884	6264LP-10	28	8K x 8	100ns (64KB) LP CMOS	2.75
42892	6264LP-12★	28	8K x 8	120ns (64KB) LP CMOS	2.49
42338	6514	18	1K x 4	350ns CMOS (UPD444C)	3.95
41970	43256-10L	28	32K x 8	100ns low power (NEC)	4.95
41988	43256-12L★	28	32K x 8	120ns low power (NEC)	4.49
82472	62256LP-70	28	32K x 8	70ns low power CMOS	4.69
42833	62256LP-10★	28	32K x 8	100ns low power CMOS	3.95
42850	62256LP-12★	28	32K x 8	120ns low power CMOS	3.75
131810	628128LP-70	32	128K x 8	70ns low power CMOS	8.95
103982	628128LP-85★	32	128K x 8	85ns low power CMOS	8.49
93243	DL156D	—		Motorola Fast Static RAM Data Book	8.95

Dynamic and Video RAMs

Part No.	Product No.	Pins		Description	Price
41321	4116-12	16	16K x 1	120ns (MM5290N-1)	$.89
41339	4116-15★	16	16K x 1	150ns (MB8116H)	.69
41638	4164-120	16	64K x 1	120ns (HY5164S-12)	.89
41662	4164-150	16	64K x 1	150ns (MCM6665-15)	.59
33620	TMS4416-12	18	16K x 4	120ns (MB81416-12)	.15
33638	TMS4416-15	18	16K x 4	150ns (48416-15)	.12

We carry major manufacturers – call for pricing on quantities over 50.

Dynamic and Video RAMs (Continued)

Part No.	Product No.	Pins	Description	Price
41435	41256-60	16	256K x 1	60ns (M5M4256P-60)	$1.49
41443	41256-80	16	256K x 1	80ns (HM50256-80)	1.29
41371	41256-100	16	256K x 1	100ns (HY53C256LS-10)	1.29
41398	41256-120	16	256K x 1	120ns (MB81256-12)	1.19
41427	41256-150	16	256K x 1	150ns (P21256-15)	1.09
41540	41264-12	24	64K x 4	120ns video RAM .3"W	2.95
41611	41464-80	18	64K x 4	80ns (HM50464-80) Closeout	1.75
41574	41464-10	18	64K x 4	100ns (M5M4416-10)	1.69
41582	41464-12	18	64K x 4	120ns (MB81464-12)	1.39
42243	511000P-70	18	1M x 1	70ns (P21010-70)	4.25
42251	511000P-80	18	1M x 1	80ns (MB811000-80)	3.95
42219	511000P-10	18	1M x 1	100ns (M5M4C1000-10)	3.75
105460	514256P-60	20	256K x 4	60ns (HY514256P-60)	3.95
93374	514256P-70	20	256K x 4	70ns (TC514256P-70)	3.75
42315	514256P-80	20	256K x 4	80ns (UPD424256-80)	3.59
42294	514256P-10	20	256K x 4	100ns (TMS44C256-10)	3.39
128688	HM514260	SOJ	256K x 16	70ns	5.95
118228	524256-80	ZIP	256K x 4	80ns (42274V-80)	7.95

DIP to SIMM Converter Card

- Soldering required
- Weight: .03 lbs. **FTP**

Part No.	Description	Price
125305	(3) Dual 256K/1M x 4 DIPs to 30-pin SIMM converter card..... Closeout	$1.95

SIMM, SIPP, DIMM and CELP RAMs

130729	JEEDO7208	72	2M x 32	60ns SIMM EDO module (8MB)	$33.95
130711	JEEDO7216	72	4M x 32	60ns SIMM EDO module (16MB)	58.95
75133	P361000-XX-6	72	1M x 36	60ns SIMM module (4MB)	26.95
75117	P361000-XX-7	72	1M x 36	70ns SIMM module (4MB)	25.95
75096	P362000-XX-6	72	2M x 36	60ns SIMM module (8MB)	49.95
75213	P362000-XX-7	72	2M x 36	70ns SIMM module (8MB)	48.95
75184	P364000-XX-6	72	4M x 36	60ns SIMM module (16MB)	69.95
75168	P364000-XX-7	72	4M x 36	70ns SIMM module (16MB)	68.95
41515	41256A9B-70	30	256K x 9	70ns SIMM module	6.49
41523	41256A9B-80	30	256K x 9	80ns SIMM module	6.25
41742	421000A9B-60	30	1M x 9	60ns SIMM module	9.95
41751	421000A9B-70	30	1M x 9	70ns SIMM module	8.95
41769	421000A9B-80	30	1M x 9	80ns SIMM module	8.75
41700	421000A9A-70	30	1M x 9	70ns SIPP module	9.95
41718	421000A9A-80	30	1M x 9	80ns SIPP module	9.75
53698	94000S-60	30	4M x 9	60ns SIMM module	26.95
53701	94000S-70	30	4M x 9	70ns SIMM module	25.95
53719	94000S-80	30	4M x 9	80ns SIMM module	24.95
132695	CELP512KB	160	128K x 32	15ns CELP module (512KB)	25.95

SIPP to SIMM Converter Card

- Allows use of 1 SIPP module in a standard 30-pin SIMM slot • Weight: .02 lbs.
- Size: 3.5"L x 1.6"W (optional) **FTP**

Part No.	Description	Price
93382	30-pin SIPP to 30-pin SIMM converter card..... Closeout	$4.95

SIMM to SIMM Converter Cards

- P/Ns 130198/130201:
  72-pin SIMM must match the total memory of 30-pin SIMMs
- Do not mix memory size or speed • Weight: 0.2 lbs. **FTP**

130083   130198

Part No.	Product No.	Description	Front/Back	1-4	5-9
130083	JE1096	(2) 72-pin SIMMs to 72-pin SIMM	Both	$17.95	$15.95
133170	JE1097	(8) 30-pin SIMMs to 72-pin SIMM	Both	11.95	9.95
130198	JE1095	(1) 72-pin, (4) 30-pin SIMMs to 72-pin SIMM	B	17.95	15.95
130201	JE1094	(1) 72-pin, (4) 30-pin SIMMs to 72-pin SIMM	F	17.95	15.95

Analog Devices — Dual-in-Line Package

Part No.	Product No.	Pins	Description	1-9	10-49
115131	AD536AJD	14	True RMS to DC converter	$17.95	$14.95
115158	AD558JN	16	Microprocessor compat. 8-bit DAC	10.95	9.95
115174	AD620AN	8	Low cost instrument amplifier	8.95	7.95
115182	AD633JN	8	Low cost analog multiplier	8.95	7.95
115203	AD712JN	8	Dual prec. high spd. BIFET op amp.	2.29	2.09
115246	AD7524JN	16	8-bit buffered multiplying DAC	4.95	4.49
115318	OP27GP	8	Low noise prec. op amp (-40°C to 80°C)	2.29	2.09
133823	—	—	Analog Circuits Troubleshooting Data Book SALE	29.95	

Analog Devices Digital Signal Processors

The ADSP-2100 Family processors are single-chip micro-computers optimized for digital signal processing (DSP) and other high speed numeric processing applications. The ADSP-21xx processors are all built upon a common core, the ADSP-2100. Each processor combines the core DSP architecture-computation units, data address generators, and program sequencer—with differentiating features such as on-chip program and data memory RAM, a programmable timer, and one or two serial ports, and on the ADSP-2111, a host interface port.

Part No.	Product No.	Pins	Description	1-9	10-49
142308	ADSP-2101KP66	PLCC/68	DSP 66MHz 2K x 24 2 serial ports	$29.95	$24.95
142316	ADSP-2101KP80	PLCC/68	DSP 80MHz 2K x 24 2 serial ports	34.95	29.95
142324	ADSP-2105KP55	PLCC/68	DSP 55MHz 1K x 24 1 serial port	19.95	16.95
142332	ADSP-2105KP80	PLCC/68	DSP 80MHz 1K x 24 1 serial port	21.95	18.95
142341	ADSP-2115KP66	PLCC/68	DSP 66MHz 1K x 24 2 serial ports	21.95	18.95
142359	ADSP-2115KP80	PLCC/68	DSP 80MHz 1K x 24 2 serial ports	22.95	19.95
142367	ADSP-2181KS133	PQFP/128	DSP 133MHz 2K x 24 2 serial ports	59.95	54.95
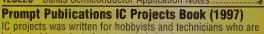
Individual spec sheets available for all above devices ($1.00 each)

Dallas Semiconductor Chips — Dual-in-Line Package

133399	DS1202	8	Serial timekeeping chip (24 x 8 RAM)	$4.25	$3.95
114198	DS1210	8	Nonvolatile controller chip	3.95	3.59
114219	DS1213C	28	SmartSocket 64K/256K bit	12.95	11.95
133401	DS1215	16	Phantom time chip Closeout	6.25	
133410	DS1216C	28	Smartwatch/RAM 64K/256K	22.95	20.95
133428	DS1216D	32	Smartwatch/RAM 64K/1M	29.95	24.95
111608	DS1216E	28	SmartWatch/ROM 64K/256K	21.95	19.95
114260	DS1220Y-150	24	16K nonvol. SRAM 10%pwr, 4.25V WP	9.95	7.95
114278	DS1225AB-150	28	64K nonvol. SRAM 5%pwr, 4.62V WP	14.95	12.95
114286	DS1225AD-150	28	64K nonvol. SRAM 10%pwr, 4.37V WP	14.95	12.95
114307	DS1225Y-200	28	64K nonvol. SRAM 10%pwr, 4.25V WP	16.95	14.95
142092	DS1230Y-85	28	256K nonvol. SRAM 10%pwr, 4.37V WP	24.95	21.95
114323	DS1230Y-150	28	256K nonvol. SRAM 10%pwr, 4.37V WP	22.95	19.95
114331	DS1232	8	Micromonitor chip	2.95	2.75
133444	DS1286	28	Watchdog timekeeper (50-Byte RAM)	16.95	14.95
76646	DS1287	24	Real time clock with RAM (MC146818A)	6.95	6.25
114366	DS1287A	24	Real time clock with RAM & clear	6.95	5.95
114374	DS1387	24	RAMified real time clock 4Kx8	8.95	8.95
114382	DS1620	8	Digital thermometer and thermostat	5.95	5.39
133461	DS2107AS	SOIC/16	SCSI/SCSI-II terminator Closeout	1.95	
133452	DS12887	24	Real time clock chip	7.95	6.95
114403	DS80C320-MCG	40	High speed micro 25MHz	13.95	12.95

Individual spec sheets available for all above devices ($1.00 each)

Dallas Semiconductors Application Note Book (1996)

Contains information for the DS 1212, 1220, 1225, 1230, 1620, and other Dallas Semiconductor parts. Also covers time-keeping, non-volatile memories, silicon timed circuits, system extension, telecom, and microcontrollers. (487 pages) • Size: 7" x 9" • Weight: 1.1 lbs.

Part No.	Description	Price
123220	Dallas Semiconductor Application Notes	$19.95

Prompt Publications IC Projects Book (1997)

IC projects was written for hobbyists and technicians who are interested in projects for integrated circuits– projects that you will be able to breadboard quickly and test easily. User friendly and fun, all the projects in this book employ integrated circuits and transistors. (224 pages) • Size: 6.0"L x 9.0"W • Weight: 0.7 lbs.

Part No.	Description	1-4	5-9
143271	IC Projects Book	$21.95	$19.95

We carry major manufacturers – call for pricing on quantities over 500.

Epson Real Time Clock Modules
Dual-In-Line Package

RTC58321B Specifications
- Frequency stability: ±50ppm
- Built-in 32.768kHz quartz crystal
- Addressable counter start, stop, and reset function
- 12 or 24-hour format • Automatic leap year setting
- Microprocessor compatible 4-bit data bus • Standard 16-pin DIP package

Part No.	Product No.	Description	1-9	10-24
29591	RTC58321B	16-pin clock module	$7.49	$6.75

RTC72421B Specifications
- Frequency stability: ±50ppm • The built-in quartz crystal makes board design easy
- Direct bus-compatibility (120 nsec access time) • Interrupt masking
- 30 seconds error adjustment function • 18-pin dual in-line plastic package

Part No.	Product No.	Description	1-9	10-24
95530	RTC72421B	18-pin clock module	$6.95	$6.25

HOLTEK Encoders/Decoders
Dual-In-Line Package

Part No.	Product No.	Pins	Description	1-9	10-24
123730	HT12E	18	Encoder 12-bit	$1.69	$1.49
123748	HT12D	18	Decoder 8-bit address / 4-bit data	1.69	1.49
123772	HT12F	18	Decoder 12-bit address	1.69	1.39
126594	HT-640	24	Encoder 10-bit address / 8-bit address or data	2.95	2.75
126607	HT-648L	24	Decoder 10-bit address / 8-bit latch data	2.95	2.75

Holtek Product Guide CD-ROM (1997)
NEW
Features product data sheets for Holtek's entire line of semiconductors in Adobe Acrobat PDF files.
- Size: 5.0" x 5.0" • Weight: .06 lbs.

Part No.	Description	1-4	5-9
146122	Holtek Data/Product CD-ROM	12.95	11.49

E-Lab Digital Interface ICs
Dual-In-Line Package

Stepper Motor Driver
This unipolar stepper motor driver is designed to interface a logic level input byte to a stepper motor. • Weight: .05 lbs.

EDE1200

Part No.	Product No.	Pins	Description	1-9	10-24
141532	EDE1200	18	Stepper motor driver	$11.95	$10.95

Text LCD Serial Controller
This Serial LCD interface IC is designed to conveniently control text based LCD modules via a simple two or three wire link. It allows both engineers and hobbyists alike to easily incorporate a LCD module into their design using a minimal amount of I/O lines.
- Weight: .05 lbs.

EDE700

Part No.	Product No.	Pins	Description	1-9	10-24
141559	EDE700	18	Serial LCD interface	$19.95	$17.95

Serial to Parallel Printer Interface
Designed to allow printing on parallel-interface printers via microcontrollers and BASIC Stamps. It allows such devices the ability to create hard-copy output of data or status without the intervention of a PC and without the I/O or timing demands of the printer's parallel interface. • Weight: .05 lbs.

EDE1400

Part No.	Product No.	Pins	Description	1-9	10-24
141567	EDE1400	18	Serial to parallel printer interface	$15.95	$13.95

Parallel/Serial Transceiver
This parallel / serial transceiver IC is designed to conveniently convert 8-bit parallel data into serial format and vice-versa. Ideal for logging data to a PC, controlling hardware via the PC serial port, communicating 8-bit data via a serial connection, and expanding I/O capabilities on microcontrollers and stamps. • Weight: .05 lbs.

EDE300

Part No.	Product No.	Pins	Description	1-9	10-24
141541	EDE300	18	Parallel/serial transceiver	$15.95	$13.95

MicroPlug™ Prototyping Boards
If your design changes, simply unplug and swap!

These double sided boards have plated holes.
- MicroPlug™ boards are pin compatible throughout the entire PIC™ family
- Detachable Perf Board saves on labor and material costs
- 4 mounting holes • Room for ZIF socket
- Ground plane for noise immunity
- Accommodates R.C. oscillator, crystal, resonator, 5V regulator, power jack, and clip on contacts for external power • Size: 3.5"L x 3.0"W

139256   139272
139264

- Includes right angle female connector • Use with MicroPerf board

139256: For all 18-pin PICs (16C52, 54, 56, 58, 554, 556, 558, 61, 620, 621, 622, 71, 710, 711, 715, 83, 84)

141170: For all 28-pin PICs (16C55, 57, 28SP, 62A, 63SP, 66SP, 72SP, 73ASP, 76SP)

Part No.	Description	Wt. (lbs.)	1-4	5-9
139256	Micro 1 processor board (for 18-pin)	.07	$17.95	$15.95
141170	Micro 2 processor board (for 28-pin)	.08	17.95	15.95

- Includes right angle male connector • Microbus I/O can be used for external control
- Silk-screen grid reference on both sides of board • Use with MicroPlug board

Part No.	Description	Wt. (lbs.)	1-4	5-9
139272	MicroPerf prototype board	.06	$11.95	$10.95

139264: Includes all parts for Micro 1 processor board (P/N 139256 – above)
141188: Includes all parts for Micro 2 processor board (P/N 141170 – above)

Part No.	Description	Wt. (lbs.)	1-4	5-9
139264	Parts kit for Micro 1	.02	$9.95	$8.95
141188	Parts kit for Micro 2	.03	9.95	8.95

Voice Chips
Dual-In-Line Package

ISD Single-Chip Voice Record/Playback Devices
10 to 240 SECOND DURATIONS (28-pin DIP)
- Easy-to-use single-chip voice record solution
- Single voltage operation • +5V (4.5V to 5.5V operating range)
- Manual switch or microprocessor controllable
- Playback can be edge- or level-activated • Directly cascadable for longer durations
- Zero-power message storage – eliminates battery backup circuits
- Automatic power-down (push-button mode) • P/N 141647: 3VDC @ 30mA
- 1 µA standby current (typical) • Fully addressable to handle multiple messages
- 100-year message retention (typical) • 100K record cycles (typical)
- On-chip clock source • On-chip automatic gain control (AGC)

Part No.	Product No.	Description	1-9	10-49	50+
141671	ISD1110P	Voice record (10 sec.)	$7.95	$6.95	$5.95
141663	ISD1416P	Voice record (16 sec.)	9.95	8.95	6.95
141655	ISD25120P	Voice record (120 sec.)	16.95	14.95	12.95
141647	ISD33240P	Voice record (240 sec.)	27.95	23.95	19.95
107334★	ISD1420P	Voice record/playback (20 sec.)	8.95	7.95	6.95
120643	ISD2560	Voice record/playback (60 sec.)	15.95	14.49	13.95
120660	ISD2590	Voice record/playback (90 sec.)	16.95	15.49	14.95

National Semiconductor Digitalker™ Chip Set & Accessories
Applications: Language translations, telecommunications, clocks, teaching aids and automotive
The DT1050 is a standard DIGITALKER™ Chip Set encoded with 137 separate and useful words, 2 tones and 5 different silence durations. • Weight: 0.1 lbs.
16491 includes: • (1) 74LS04 (14-pin)
- (1) Speech Processor Chip, MM54104N (40-pin) • Master Word List
- (2) Speech ROMs, MM52164SSR1 (24-pin) and MM52164SSR2 (24-pin)
- The recommended schematic diagram is included on the application sheet
16504 includes: • (1) 74LS04 (14-pin)
- (2) Speech ROMs, MM52164SSR5 (24-pin) and MM52164SSR6 (24-pin)

Part No.	Product No.	Description	1-9	10-24
16491★	DT1050	Digitalker™ (4 chips)	$29.95	$26.95
16504	DT1057	Vocabulary expansion (3 chips)	19.95	17.95
26147	MM54104N	Speech chip	12.95	11.49
14592	CY4	Required 4MHz crystal	1.05	.85

Digital Voice Module
- 1M DRAM on board • Plays 16 messages • Selectable 16K/32K/44K bps sampling rate • 0.5W audio amp on board with volume control • All components soldered on board • Power requirements: 6-12VDC, 200mA

Part No.	Product No.	Description	Weight	Price
124871	DVM58D	Digital voice module	0.5 lbs.	$79.95

EDWin NC Electronics CAD/CAE Software

The first truly seamlessly integrated suite of software running in all windows formats…simulation, schematics, and PCB design. Allows students, teachers, and amateurs to take advantage of latest professional CAD/CAE technology.
• Integrated schematic / PCB layout database
• Comprehensive start-up libraries • Requires Windows® 3.1/95
• Includes manual, CD-ROM and 3.5" floppy diskette

Part No.	Description	Wt. (lbs.)	1-4	5-9
141680	EDWin NC (CAD/CAE) software	0.7	$149.95	$134.95
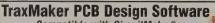
CircuitMaker® Schematics Software
• Accurate analog, digital and mixed-mode simulation
• Powerful interactive circuit analysis capabilities
• 1000+ devices and models included
• SPICE compatible import/export
• Optional PCB layout and autorouting (use P/N 139301 – below)

Part No.	Description	Wt. (lbs.)	Price
125591	CircuitMaker® Schematics Software	1.6	$279.95

TraxMaker PCB Design Software
Compatible with CircuitMaker®
• Easy to learn and operate • Board size to 32"L x 32"W
• 6 single layers plus power and ground planes
• Built-in autorouter • Components are placed automatically
• Through-hole and surface mount design capability
• Select either English or Metric units
• Minimum system requirements: 386 (or higher) processor, Windows 3.x/95/NT, 5MB hard disk space, 4MB RAM

Part No.	Description	Wt. (lbs.)	Price
139301	Virtual PCB design software	1.4	$299.95

WinBOARD PCB Layout / WinDRAFT Schematics Software
• Minimum system requirements: 486/DX2, 10MB hard drive space, 8MB RAM, SVGA (800 x 600)
• Support up to 450 pin designs
142973: WinBOARD PCB Layout Software
• Supports 16 layers with multiple copper pours
142981: WinDRAFT Schematics Software
• Makes sophisticated electrical rule checks • Warns when pins are unconnected
• Library contains over 12,000 electronic parts, or create and edit your own

Part No.	Description	Wt. (lbs.)	Price
142973	WinBOARD Electronic PCB CAD	1.6	$149.95
142981	WinDRAFT Electronic Schematic CAD	1.6	149.95

micro Engineering Labs EPIC
Pocket PIC Programmer Plus
• Supports PIC16Cxx devices
• Includes 18-pin socket for programming 16C554, 556, 558, 61, 620, 621, 622, 71, 710, 711, 83, 84 and 8-pin 12C508 & 509
• Optional adapters available (see below) • Software upgradeable for future PICs
• Includes DOS programming software and PIC macro assembler compatible with Microchip mnemonics and Parallax "8051" style mnemonics
• Requires two 9V batteries or AC adapter (not included, P/N 101258 – pg 63) & PC compatible parallel port • One-year warranty

Part No.	Description	Wt. (lbs.)	Price
132679	EPIC pocket PIC programmer	0.20	$59.95
136397	8/18-pin ZIF adapter	0.07	34.95
146341	8-pin SOIC adapter	0.05	49.95
146051	18-pin SOIC adapter	0.06	49.95
132610	40/28-pin ZIF adapter	0.10	29.95
145251	28-pin PIC14000 ZIF adapter	0.08	29.95
146042	28-pin SOIC adapter	0.06	49.95

PIC'n up the Pace Beginner's Guide NEW

Square 1 Publishing The next book from where Easy PIC'n left off. It includes topics on Op Amps, shift registers, liquid crystal display interface, digital to analog conversions, analog to digital conversions, decimal interface and so on. • Size: 8.5" x 11.0"

Part No.	Description	Pages	Wt. (lbs.)	Price
145736	PIC'n up the Pace Beginners Guide	280	1.7	$34.95
136645	Easy PIC'n Data Book	152	1.0	29.95

CMOS PIC Microcontrollers
Dual-In-Line Package

Part No.	Product No.	Pins	Conf.	EPROM MHz Range	RAM Bytes	I/O Bytes	Lines	1-9	10-49
145040	PIC12C508-04/P	8	OTP	DC - 4MHz	512 x 12	25B	5	$1.95	$1.75
145058	PIC12C509/JW	8	EPROM	DC - 4MHz	1K x 12	41B	5	13.95	12.95
144258	PIC12C509-04/P	8	OTP	DC - 4MHz	1K x 12	41B	5	2.19	1.95
128338	PIC16C54A-04/P	18	OTP	DC - 4MHz	512 x 12	25B	12	3.95	3.59
134164	PIC16C55-RC/P	18	OTP	DC - 20MHz	512 x 12	25B	20	4.49	3.95
134172	PIC16C56-RC/P	18	OTP	DC - 20MHz	1K x 12	25B	12	4.49	3.95
128354	PIC16C57-XT/P	28	OTP	100k - 4MHz	2K x 12	72B	20	5.95	5.39
134181	PIC16C57/JW	28	EPROM	DC - 20MHz	2K x 12	72B	20	18.95	16.95
128389	PIC16C61-04/P	18	OTP	DC - 4MHz	1K x 14	36B	13	5.95	5.39
134210	PIC16C73-04/SP	28	OTP	DC - 4MHz	4K x 14	192B	22	9.95	8.95
145091	PIC16C74A/JW	40	EPROM	DC - 20MHz	14K x 14	192x8	33	21.95	19.95
145103	PIC16C74A-04/P	40	OTP	DC - 4MHz	4K x 14	192x8	33	9.95	8.95
134236	PIC16C84-04/P	18	OTP	DC - 4MHz	1K x 14	36B	13	6.95	6.25
144266	PIC16C554-04/P	18	OTP	DC - 4MHz	512 x 14	80B	13	3.95	3.59
144899	PIC16C558/JW	18	EPROM	DC - 20MHz	2K x 14	128B	13	14.95	13.95
145066	PIC16C558-04/P	18	OTP	DC - 4MHz	2K x 14	128B	13	4.49	3.95
145074	PIC16C622/JW	18	EPROM	DC - 20MHz	2K x 14	128B	13	15.95	14.95
145082	PIC16C622-04/P	18	OTP	DC - 4MHz	2K x 14	128B	13	5.49	4.95
145138	PIC16C711/JW	18	EPROM	DC - 20MHz	1K x 14	68B	13	14.95	13.95
145146	PIC16C711-04/P	18	OTP	DC - 4MHz	1K x 14	68B	13	5.95	5.39
145111	PIC16F84-04/P	18	OTP	DC - 4MHz	1K x 14	68B	13	6.95	6.25
145120	PIC16F84-10/P	18	OTP	DC - 4MHz	1K x 14	68B	13	7.95	6.95

PIC Development Kits
The kit includes a PC-hosted system which provides an assembly for code development, a simulator, samples and programmer board. Includes RS232 cable. Documentation included in README file.
PICSTART Lite16C (P/N 128531) for PIC: 16C62, 16C64, 16C65, 16C74
PICSTART Lite16B (P/N 128522) for PIC: 16C54A, 16C57, 16C58A, 16C61, 16C620
Requires 9V @ 500mA (recommend wall transformer P/N 100175 – pg 62)

Part No.	Description	Wt. (lbs.)	Price
128531	Development kit 16C	1.0	$119.95
128522	Development kit 16B	0.3	109.95

micro Engineering Labs
"PICProto" Prototyping Boards
• Pre-wired to hold your favorite PIC, 5 volt regulators, capacitors and crystals, RC or ceramic resonators • One-year warranty
• Solder mask on both sides of board • Location for DE9-DB25 RS232 style connector
• Includes documentation sheet showing suggested parts, placement and a schematic

Part No.	Description	Size (L" x W")	Wt. (lbs.)	1-9	10-24
• For 28-pin PIC16C62, 63, 72 and 73					
132636	PICProto 3	3.0 x 3.0	0.1	$14.95	$13.49
• For 8-pin PIC12C508 or 509 • Solder mask					
136400	PICProto 8	2.0 x 1.2	0.1	9.95	8.95
• For 28-pin PIC14000 NEW					
145349	PICProto 14	3.0 x 3.0	0.05	14.95	13.49
• For all 18-pin PICs including PIC16C52, 54, 56, 58, 554, 556, 558, 61, 620, 621, 622, 71, 710, 711, 715, 83 & 84					
132644	PICProto 18	3.0 x 1.5	0.03	9.95	8.95
• For both 18-pin PICs including PIC16C52, 54, 56, 58, 554, 556, 558, 61, 620, 621, 622, 71, 710, 711, 715, 83 & 84 and 28-pin PIC16C55, 57					
• Accepts either standard 0.6"W 28-pin device or 0.3"W skinny DIP					
132628	PICProto Dual 18/28	3.0 x 3.0	0.05	14.95	13.49
• For 40-pin PIC16C64, 65 and 74					
132652	PICProto 64	4.0 x 3.0	0.1	16.95	14.95
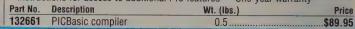
micro Engineering Labs PICBasic Compiler
Write PIC programs in BASIC! Converts BASIC programs into hex or binary files for PIC microcontrollers.
• Runs on PC or compatibles • For PIC16C6x, 62x, 7x, 8x
• Compatible with most PIC programmers including P/N 132679 (left) • Basic Stamp 1 compatible instruction set
• Assembly language instructions may be mixed with BASIC instructions for access to additional PIC features • One-year warranty

Part No.	Description	Wt. (lbs.)	Price
132661	PICBasic compiler	0.5	$89.95

JAMECO $1.39 Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128.
99.7% Stock Availability!

New Parallax Application Kits –
See Inside Back Cover!

80C52-Basic Microcontroller

The 80C52-Basic chip is a custom-masked 80C52 microcontroller with a full-featured 8K-byte ROM-resident Basic-52 interpreter.

Hardware:
- On-chip oscillator and clock circuit   125647
- Operates DC to 12MHz • 256 x 8-bit RAM

Software:
- Full BASIC interpreter in ROM on a single chip
- "Stand-alone" software development
- Interrupts can be handled by BASIC or Assembly Language

Part No.	Description	1-9	10-49
125647	CPU 8-bit CMOS w/ basic interpr.	$19.95	$17.95

The 8052 Microcontroller Idea Book (1994)

- Circuits, programs and applications featuring the 8052-Basic single chip computer • 277 pages
- Size: 7.8" x 10.5" • Weight: 1.6 lbs.

Part No.	Description	1-4	5-9
126375	Microcontroller Idea Book	$31.95	$28.95

Basic-52 Reference Book (1989)

- Complete reference to programming 80C52-Basic and 8052AH-Basic microcontrollers • 160 pages
- Size: 8.2" x 10.6" • Weight: 1.0 lb.   BASIC-52

Part No.	Description	1-4	5-9
126252	Basic-52 Programm. Ref.	$24.95	$22.49

Software Disk for Basic-52 Book

- 3.5" disk of circuit examples for P/N 126252
- Weight: 1.0 lb.

Part No.	Description	1-4	5-9
126295	Basic-52 3.5" disk	$11.95	$10.49

SOLUTIONS CUBED RAM Pack B Module

The RAM Pack B module allows addressable access to 8Kx8 bytes of RAM. An auto-baud detect function supports communication at 1200-19200 baud rates without the use of hardware jumpers. A software command allows the RAM Pack B to be expanded to handle 32Kx8 RAM. An additional FIFO (first-in-first-out) buffer mode has been included. This function allows sequential storage of data in RAM without the need to address the RAM. RAM comes socketed for easy replacement with NVRAM or 32Kx8 RAM.
- Weight: .04 lbs.

Part No.	Description	Price
143811	6-pin RAM Pack B module	$29.95

SOLUTIONS CUBED Motor Mind B Module

Motor control is simplified to a one or two line serial communication stream. DC motors with operating voltages as great as 30VDC and continuous currents of 2A can be controlled. An on board frequency counter has a range of 0-65,528Hz. Motor speed (254 steps) and direction can be controlled. Motors with tachometers or encoders may make use of the automated speed control function.
- Weight: .03 lbs.

Part No.	Description	Price
143802	9-pin Motor Mind B module	$29.95

PARALLAX Basic Stamps

Basic Stamps are small computers using a variation of Basic, called PBASIC to control execution of many applications. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines which can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Each allows you to store data in the EEPROM before downloading a BASIC program. Thousands of Basic Stamps are in use by hobbyists and professionals!
- Circuitry includes a BASIC interpreter, EEPROM (non-volatile), a resonator and 5V regulator
- Embedded BASIC plus instruction sets
- Requires P/N 127714 (right) for operation

See page 28 for Serial LCD Module

Specifications:

	BS1-IC	BS2-IC
EEPROM	256 bytes	2048 bytes
RAM	14 bytes	26 bytes
Max. prog. length	80 instructions	500 instructions
Clock speed	4MHz	20MHz
Program speed	2000/sec.	4000/sec.
Max I/O speed	2400 baud	50K byte
Package	14-pin SIP	24-pin DIP
PC Interface	Parallel	Serial
Size	1.4"L x 0.4"W	1.2"L x 0.6"W

140089: Basic Stamp® Rev. D Kit
Includes our original Basic Stamp Rev. D, manual, software and programming cable.

140062: Basic Stamp®1 Starter Kit
Design your project today using the Basic Stamp 1. Includes a BS1-IC, carrier board, manual, software and programming cable.

140071: Basic Stamp®2 Starter Kit
Take advantage of all the cool features of the Basic Stamp 2. Includes the BS2-IC, carrier board, manual, software and programming cable.

Part No.	Description	Wt. (lbs.)	Price
127693	Basic stamp BS1-IC	0.01	$34.95
130892	Basic stamp BS2-IC	0.01	49.95
140089	Basic stamp Rev. D kit	1.0	79.95
140062	Basic stamp 1 starter kit	1.0	99.95
140071	Basic stamp 2 starter kit	1.9	149.95

SOLUTIONS CUBED Pocket Watch B Module   NEW

The Pocket Watch B module is an enhanced, pin for pin replacement of the Solutions Cubed Pocket Watch. It contains a real time clock, a calendar, and advanced timing features. The real-time clock module keeps track of seconds, minutes, hours, days, months, and years. Adjustments for leap year are automatically performed. A year 2000 fix allows for worry free use into the next millennium.
- For use with P/N 130892 (above)
- Leap year compensation • Year 2000 compliant
- Easy to use 1 or 2 wire interface
- Four types of user configurable alarms
- Externally accessible, precision timebase
- Standard TTL levels • Easy to use SIP package
- Size: 1.0"L x 1.0"W • Wt.: .05 lbs. • One-year warranty

Part No.	Description	Price
145630	Pocket Watch B module	$24.95

PARALLAX Basic Stamp Programming Package

This package includes everything you need to program your stamps: software, cables, documentation, application notes and free tech support!
- Requires IBM PC or compatible, 3.5" floppy drive, DOS 2.0+, and a parallel port
- Basic stamp module (P/N 127693 and/or 130892) not included   *Easily programs your STAMPs!*
- Recommend purchasing P/N 127706 and/or 130921 (below) • Weight: 3.0 lbs.

Part No.	Description	Price
127714	Basic stamp prog. pkg. SALE	$89.95

PARALLAX Stamp Module Carrier Boards

Optional boards for BS1-IC and BS2-IC stamps.
- Easy use of stamp with prototyping area, 9-volt battery clips, I/O header, reset button, and programming connector   127706 shown with 127693 (127693 not included)
- P/N's 127693 and 130892 not included • Wt.: 0.1 lbs.
- Size: 127706: 3.5"L x 2.0"W, 130921: 3.0"L x 2.6"W

Part No.	Description	Price
127706	BS1-IC carrier board	$17.95
130921	BS2-IC carrier board	22.95

PARALLAX PIC16CXX Programmer Pack

Programs, reads & verifies PIC16CXX devices!
- Supports PICs: 54, 55, 56, 57, 58, 620, 621, 622, 61, 62*, 63*, 64*, 65*, 71, 72*, 73*, 74* and 84
- *Requires 40-pin ZIF adapter (below)   132898
- As new PICs are introduced, the programmer can be upgraded to support them   VALUE
- Requires IBM PC or compatible with parallel port, DOS 2.0 or better
- Includes programmer, 8051-like assembler, software simulator and application notes
- Power supply and cables not included, recommend P/N 101258 (pg 63)
- All documentation provided on disk – to print, you must have a laser printer or inkjet printer and Windows® 3.1 or newer
- Weight: 0.3 lbs. • One-year warranty

Part No.	Description	Price
132898	PIC16CXX programmer pack	$119.95
133911	40-pin ZIF adapter	59.95

Basic Stamp Data Book (1997)

Newnes Publishing This book covers both the hardware and the software sides of the Parallax BASIC Stamp I and II microprocessor operation and design. It walks you through applications suitable for designers as well as the home hobbyist. (284 pages)
- Size: 6.0"L x 9.0"W
- Weight: 0.9 lbs.

Part No.	Description	1-4	5-9
143651	Basic Stamp Data Book	$34.95	$31.49

- Assorted values, types and sizes • Perfect for prototyping and educational projects • Use our 20 drawer cabinet to store your components, P/N 81701 (pg 32)

17881   18075   135458   135394   135407   135378   135271

Capacitors

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
17857	GB100★	200 asst. ceramic disc capacitors	0.1	$3.95	$3.49
135335	GB100LB	1 lb. (985 pcs.) asst. ceramic disc caps	1.0	9.95	8.95
17881	GB101★	100 asst. mylar capacitors	0.2	4.95	4.49
135458	GB101LB	1 lb. (310 pcs.) asst. mylar capacitors	1.0	9.95	8.95
17911	GB102★	100 asst. electrolytic capacitors (radial, axial, snap)	0.4	4.95	4.49
135394	GB102LB	3 lbs. (390 pcs.) asst. electrolytic caps (radial, axial, snap)	3.0	12.95	11.49
17945	GB103	50 asst. tantalum capacitors (dipped epoxy and solid tubular)	.02	4.95	4.49

Diodes and Transistors

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
17961	GB107★	200 asst. diodes (zener, switching, silicon)	0.1	$4.95	$4.49
135440	GB107LB	1 lb. (1650 pcs.) asst. diodes (zener, switching, silicon)	1.0	24.95	22.49
18171	GB127★	100 asst. transistors (NPN, PNP, power)	0.2	4.95	4.49

Potentiometers and Knobs

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
18075	GB113★	100 asst. 1/10 to 1/8W trimmer pots (100 to 2MΩ values)	.04	$3.95	$3.49
18278	GB174	100 asst. 1/4W single turn pots (100 to 5MΩ values)	0.2	5.95	5.39
135407	GB174LB	1 lb. (295 pcs.) 1/4W single turn pots (100 to 5MΩ asst. values)	1.0	12.95	11.49
78967	GB135	50 asst. 1/2W single turn pots (63P series) (100 to 2MΩ/3/8" Sq.)	0.1	6.95	6.25
141946	GB144	20 asst. heavy duty industrial knobs	0.6	6.95	6.25

Integrated Circuits and Crystals/Oscillators

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
17996	GB108★	50 asst. 7400 series (74, 74C, 74L, 74F)	0.1	$4.95	$4.49
135280	GB108LB	1 lb. (400 pcs.) asst. 7400 series (74, 74C, 74L, 74F, 74S, 74HC)	1.0	SALE	17.95
18024	GB109★	50 asst. linear series (LM300, 500, 700, 7800, 7900 regulators) DIP, TO-3, TO-220	0.1	4.95	4.49
145242	GB109LB	1 lb. (330 pcs.) asst. linear series (LM300, 500, 700, 7800, 7900 regulators)	1.0	17.95	15.95
129891	GB111	50 asst. 1 amp positive regulators (TO-3, TO-220, 7800 series)	0.4	4.95	4.49
129904	GB112	50 asst. 1 amp negative regulators (TO-3, TO-220, 7900 series)	0.4	4.95	4.49
18251	GB170	50 asst. 74LS series (74LS , HC, HCT, etc.)	0.1	4.95	4.49
114964	GB171	50 asst. microprocessor series (micros, RAMs, EPROMs)	0.1	7.95	6.95
114446	GB150★	50 asst. crystals and oscillators	0.2	5.95	5.39
135415	GB150LB	1 lb. (195 pcs.) asst. crystals & oscill.	1.0	SALE	15.95

Switches, Relays and Heat Shrink Tubing

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
18235	GB165★	50 asst. switches (toggle, push button, rocker, slide)	0.4	$6.95	$6.25
135378	GB165LB	1 lb. (135 pcs.) asst. switches (toggle, push button, rocker, slide)	1.0	SALE	13.49
141962	GB142	15 asst. electro mechanical relays	0.5	6.95	6.25
141971	GB145	50 asst. sizes/heat shrink tubing (3"L)	0.2	6.95	6.25

LEDs and Displays

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
18041	GB110★	100 asst. sizes and colored LEDs (T1/T1³/₄ round and rectangular)	0.1	$5.95	$5.39
18323	GB186	500 asst. sizes and colored LEDs (T1/T1³/₄ round and rectangular)	0.3	16.95	14.95
135271	GB110LB	1 lb. (1900 pcs.) asst. LEDs (above) (T1/T1³/₄ round and rectangular)	1.0	SALE	35.95
18201	GB162★	50 asst. sizes of colored displays (7-segment LED, modules, stick)	0.3	7.95	6.95
135343	GB162LB	1 lb. (145 pcs.) asst. colored displays (7-segment LED, modules, stick)	1.0	SALE	15.95

Resistors and Resistor Networks

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
134130	GB115	100 asst. resistor networks (6, 8, 10-pin bussed & isolated)	0.1	$4.95	$4.49
18104	GB116★	200 asst. 1/4 watt resistors (5%/10%)	0.1	3.95	3.49
135351	GB116LB	2200 pcs. asst. 1/4 watt resistors	1.0	17.95	15.95
18163	GB118	400 asst. 1/4 watt resistors (5%/10%)	0.2	5.95	5.39
18139	GB117★	200 asst. 1/2 watt resistors (5%/10%)	0.2	3.95	3.49
142009	GB114	50 asst. wire wound resistors	0.5	4.95	4.49

IC Sockets, Connectors, Terminal Blocks and Clips

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
105620	GB120★	100 asst. IC sockets (DIP IC, PGA, TO-3)	0.2	$3.95	$3.49
135386	GB120LB	1 lb. (330 pcs.) asst. IC sockets (DIP IC, PGA, TO-3)	1.0	SALE	7.95
105654	GB130★	50 asst. D-sub, UG, IDC, card edge connectors (solder cup/PC mount)	0.9	4.95	4.49
135360	GB130LB	4 lbs. (150 pcs.) asst. D-sub, UG, IDC, card edge connectors (solder cup/PC)	4.0	SALE	9.95
141989	GB146	6 asst. large terminal blocks	0.4	3.95	3.49
141997	GB148	15 asst. adhesive cable clips	0.1	4.95	4.49

Spacers, Standoffs, Springs, Solenoids and Toy Motors

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
55968	GB140★	100 asst. alum. & nylon spacers/standoffs (sizes 2-56 to 8-32, round and hex)	0.4	$5.95	$5.39
135423	GB140LB	1 lb. (310 pcs.) asst. spacers/standoffs (sizes 2-56 to 8-32, round and hex)	1.0	12.95	11.49
141938	GB143	½ lb. (300 pcs.) asst. steel springs	0.5	7.95	6.95
141954	GB141	5 asst. pull-type solenoids	0.7	5.95	5.39
18294	GB182★	5 asst. toy DC motors (1.5 – 12VDC)	0.3	3.95	3.49

Jameco's Surprise Grab Bags

Part No.	Product No.	Description	1-4	5-9
135263	GB191LB★	3 lbs. (1075 pcs.) electronic components: axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, resistor networks, diodes, IC's, standoffs, oscillator/resonators, inductors, resistors, pots, switches, LEDs	$14.95	$13.49
18331	GB190	Component/computer grab bag Hundreds of electronic components, cables, power supply, transformer, PC board and computer products (average weight: 10 lbs.)	SALE	$22.49

Customer Request!

Our Best Seller!

Note: LB grab bag quantities are approximate. Opened grab bags are not returnable.

JAMECO $1.39 Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
99.7% Stock Availability!

Kits include the Most Popular Components with extra space for your Customized Expansion

Each Kit includes a 20 Drawer Component Cabinet (81701),
20 clear plastic drawers, 20 clear dividers (85446),
30 adhesive labels for drawers to identify parts in kit,
all Electronic Components listed in each kit.

- Cabinet size: 6.0"L x 15.0"W x 7.9"H (81701)
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet: ABS-Black • Weight: 4.6 to 6.4 lbs.
- Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed
in each kit, each group of Components separately packaged.

- Refill package does not include Cabinet (81701 – pg 32)

Just call 1-800-831-4242 when cabinet needs a refill

LEDs & Mounting Hardware Kit $80 VALUE

Includes 540 pcs. (15 types) LEDs and mounting hardware

10 each	10 each	30 each	30 each	100 each
NE2	XC5410	CTP280	XC209Y	LMH200
XC52RG	XC5491	RTP280	XC556G	XC209R
XC554R	XC57124R	XC209G	XC556Y	XC556R

Part No.	Description	Weight	1-4	5-9
84996	540 pc. LED & Hardware kit	5.0 lbs.	$69.95	$62.95
130438	Refill for 84996 (540 pc.)	0.3 lbs.	54.95	49.95

7400 Series IC Kit $204 VALUE

Includes 330 pcs. (30 types) 7400 (TTL) Integrated Circuits

5 each	10 each	10 each	10 each	20 each
7483	7402	7420	7485	7400
7489	7405	7432	7486	7404
7490	7410	7447	7493	7406
74154	7411	7470	74121	7407
74192	7414	7475	74123	7408
74193	7417	7476	74125	7474

84953	330 pc. 7400 series IC kit	6.2 lbs.	**SALE**	$152.95
130382	Refill for 84953 (330 pc.)	1.5 lbs.	139.95	129.95

74LS00 Series IC Kit $141 VALUE

Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	20 each
74LS05	74LS47	74LS93	74LS193	74LS00
74LS07	74LS48	74LS123	74LS240	74LS02
74LS10	74LS75	74LS125	74LS244	74LS04
74LS11	74LS76	74LS139	74LS245	74LS08
74LS14	74LS85	74LS151	74LS273	74LS32
74LS20	74LS86	74LS157	74LS373	74LS74
74LS30	74LS90	74LS174	74LS374	74LS138

84961	420 pc. 74LS series IC kit	6.7 lbs.	$119.95	$107.95
130391	Refill for 84961 (420 pc.)	2.0 lbs.	104.95	94.95

CD4000 Series IC Kit (CMOS) $101 VALUE

Includes 300 pcs. (25 types) CD4000 Series Integrated Circuits

10 each	10 each	10 each	10 each	20 each
CD4015	CD4024	CD4051	CD4093	CD4001
CD4016	CD4027	CD4069	CD4511	CD4011
CD4017	CD4040	CD4070	CD4538	CD4013
CD4020	CD4046	CD4071	CD4543	CD4049
CD4023	CD4050	CD4081	CD4584	CD4066

84970	300 pc. CD4000 series IC kit	6.1 lbs.	$84.95	$76.95
130403	Refill for 84970 (300 pc.)	1.4 lbs.	69.95	62.95

Linear Series IC Kit $183 VALUE

Includes 385 pcs. (35 types) Linear Series Integrated Circuits

5 each	10 each	10 each	10 each	20 each
ULN2003A	LM317T	LM339N	LM747CN	7805T
LM335Z	78L05	LM311N	LF351N	7812T
NE5532	7815T	LM556N	LM301N	NE555V
TL074CN	7912T	LM1458N	LM386N-3	LM741CN
TL072CP	7905T	TL082CP	LM723CN	LM358N
LM385Z1.2	LM337T	LF353N	LM1488N	LM324N
LM567V	7915T	LF356N	LM1489N	LM336Z

84988	385 pc. Linear series IC kit	6.0 lbs.	$159.95	$143.95
130411	Refill for 84988 (385 pc.)	1.3 lbs.	144.95	129.95

Low Profile IC Socket Kit $44 VALUE

Includes 300 pcs. (10 types) Solder tail (Tin) IC Sockets

10 each	20 each	20 each	50 each	50 each
22LP	18LP	28LP	8LP	16LP
24SLP	24LP	40LP	14LP	20LP

85075	300 pc. LP IC Socket kit	5.5 lbs.	$34.95	$31.95
130471	Refill for 85075 (300 pc.)	1.0 lb.	19.95	17.95

Gold Wire Wrap IC Socket/ID Kit $97 VALUE

Includes 120 pcs. (8 types) Level 2 (Gold)WW IC Sockets
(8 types) Plastic Socket wrap ID Markers

5 each	5 each	10 each	10 each
18ID	28ID	8ID	16ID
18WW	28WW	8WW	16WW
24ID	40ID	14ID	20ID
24WW	40WW	14WW	20WW

Part No.	Description	Weight	1-4	5-9
85067	120 pc. WW IC Socket kit	5.2 lbs.	$89.95	$79.95
130462	Refill for 85067 (120 pc.)	0.5 lbs.	74.95	67.95

1/8 Watt Carbon Film Resistor Kit $33 VALUE

Includes 540 pcs. (30 values) 1/8 watt 5% Resistors

10 each	10 each	10 each	10 each	50 each
10Ω	470Ω	3.3KΩ	27KΩ	100Ω
47Ω	680Ω	5.1KΩ	33KΩ	220Ω
150Ω	1.5KΩ	5.6KΩ	47KΩ	1KΩ
270Ω	2KΩ	6.8KΩ	470KΩ	4.7KΩ
330Ω	2.2KΩ	15KΩ	1MegΩ	10KΩ
390Ω	2.7KΩ	22KΩ	10MegΩ	100KΩ

108329	540 pc. 1/8 watt Resistor kit	4.9 lbs.	$29.95	$26.95
108302	Refill for 108329 (540 pc.)	0.2 lbs.	**SALE**	11.95

1/4 Watt Carbon Film Resistor Kit $32 VALUE

Includes 540 pcs. (30 values) 1/4 watt 5% Resistors

10 each	10 each	10 each	10 each	50 each
10Ω	470Ω	2.7KΩ	22KΩ	100Ω
47Ω	680Ω	3.3KΩ	33KΩ	220Ω
150Ω	1.2KΩ	5.1KΩ	47KΩ	1KΩ
270Ω	1.5KΩ	5.6KΩ	470KΩ	4.7KΩ
330Ω	2KΩ	15KΩ	1MegΩ	10KΩ
390Ω	2.2KΩ	20KΩ	10MegΩ	100KΩ

81832★	540 pc. 1/4 watt Resistor kit	4.9 lbs.	$28.95	$25.95
103165	Refill for 81832 (540 pc.)	0.2 lbs.	13.95	12.49

1/2 Watt Carbon Film Resistor Kit $36 VALUE

Includes 540 pcs. (30 values) 1/2 watt 5% Resistors

10 each	10 each	10 each	10 each	50 each
10Ω	470Ω	3.3KΩ	27KΩ	100Ω
47Ω	680Ω	5.1KΩ	33KΩ	220Ω
150Ω	1.5KΩ	5.6KΩ	47KΩ	1KΩ
270Ω	2KΩ	6.8KΩ	470KΩ	4.7KΩ
330Ω	2.2KΩ	15KΩ	1MegΩ	10KΩ
390Ω	2.7KΩ	22KΩ	10MegΩ	100KΩ

107879	540 pc. 1/2 watt Resistor kit	5.1 lbs.	$32.95	$29.95
107852	Refill for 107879 (540 pc.)	0.4 lbs.	**SALE**	15.95

Single Turn Cermet Pot Kit $69 VALUE

Includes 70 pcs. (10 values) 1/2 watt Linear Taper Potentiometer

5 each	5 each	5 each	10 each	10 each
63P500	63P5K	63P500K	63P1K	63P50K
63P2K	63P20K	63P1Meg	63P10K	63P100K

85032	70 pc. single turn Pot kit	4.9 lbs.	$54.95	$49.95
130446	Refill for 85032(70 pc.)	0.1 lbs.	39.95	35.95

15 Turn Cermet Pot Kit $91 VALUE

Includes 70 pcs. (10 values) 3/4 watt Linear Taper Potentiometer

5 each	5 each	5 each	10 each	10 each
43P500	43P5K	43P500K	43P1K	43P50K
43P2K	43P20K	43P1Meg	43P10K	43P100K

85041	70 pc. 15 turn Pot kit	4.9 lbs.	$64.95	$57.95
130454	Refill for 85041 (70 pc.)	0.2 lbs.	49.95	44.95

Switch Kit $102 VALUE

Includes 84 pcs. (15 types) Push Button, Dip & Toggle Switches

3 each	5 each	5 each	5 each	10 each
206-12	206-4	JMT223	MPC223	206-8
75900	76523	MPC121	LFH223	JMT123
JMT221	JMT121	MPC123	MS103	MS102

85059	84 pc. Switch kit	5.0 lbs.	$79.95	$69.95
130420	Refill for 85059 (84 pc.)	0.8 lbs.	64.95	57.95

Electronic Hardware, Spacer and Standoff Kit

Includes 2200 pcs. (25 types) Spacers, Standoffs, Nuts,
Flat, Tooth & Lock Washers and Slotted PH Screws

25 each	100 each	100 each	100 each	100 each	100 each
Spacers	Hex nuts	Flat,	Int. tooth,	Split lock	PH machine screws
2-56	2-56	—	—	#2	2-56 x 1/4"
4-40	4-40	#4	#4	#4	4-40 x 1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x 1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x 3/8, 1/2

Part No.	Description	Weight	1-4	5-9
108433★	2200 pc. Elec. Hardware kit	7.5 lbs.	$39.95	$35.95
130497	Refill for 108433 (2200 pc.)	2.7 lbs.	24.95	22.49

Radial Capacitor Kit $51 VALUE

Includes 110 pcs. (10 values) Radial Electrolytic Capacitors

5 each	10 each	10 each	10 each	20 each
2200µf25v	4.7µf 50v	100µf 50v	470µf 25v	1µf 50v
3300µf25v	47µf 50v	220µf 25v	1000µf 16v	10µf 50v

81867★	110 pc. Radial Capacitor kit	5.3 lbs.	$34.95	$31.95
130331	Refill for 81867 (110 pc.)	0.5 lbs.	19.95	17.95

Axial Capacitor Kit $42 VALUE

Includes 110 pcs. (10 values) Axial Electrolytic Capacitors

5 each	10 each	10 each	10 each	20 each
1000µf25v	4.7µf 50v	47µf 50v	220µf 50v	1µf 50v
2200µf16v	22µf 50v	100µf 50v	470µf 50v	10µf 50v

81875	110 pc. Axial Capacitor kit	5.3 lbs.	$34.95	$31.49
130340	Refill for 81875 (110 pc.)	0.6 lbs.	19.95	17.95

Ceramic Capacitor Kit $36 VALUE

Includes 320 pcs. (10 values) 50v Ceramic Disc Capacitors

20 each	20 each	20 each	50 each	50 each
10pf	47pf	.022µf	100pf	.01µf
22pf	470pf	.047µf	.001µf	.1µf

81859★	320 pc. Ceramic Cap. kit	5.0 lbs.	$29.95	$26.95
130232	Refill for 81859 (320 pc.)	0.3 lbs.	14.95	13.49

Mylar Capacitor Kit $44 VALUE

Includes 160 pcs. (10 values) 100v ±10% Mylar Capacitors

10 each	10 each	10 each	20 each	30 each
.022µf	.047µf	.47µf	.001µf	.01µf
.033µf	.22µf	1µf	.0047µf	.1µf

81883	160 pc. Mylar Capacitor kit	5.1 lbs.	$34.95	$31.49
130358	Refill for 81883 (160 pc.)	0.3 lbs.	19.95	17.95

Tantalum Capacitor Kit $59 VALUE

Includes 129 pcs. (12 values) ±20% Dipped Tantalum Capacitors

3 each	10 each	10 each	20 each
6.8µf 35v	.22µf 35v	4.7µf 35v	1µf 35v
15µf 25v	.47µf 35v	10µf 35v	.1µf 35v
47µf 25v	3.3µf 35v	33µf 25v	2.2µf 35v

81841	129 pc. Tantalum Cap. kit	4.8 lbs.	$49.95	$44.95
130260	Refill for 81841 (129 pc.)	0.3 lbs.	34.95	31.95

Diode Kit $77 VALUE

Includes 270 pcs. (15 types) Zener, Switching and Silicon Rectifiers

10 each	10 each	10 each	10 each	50 each
1N270	1N3600	1N4733	1N5401	1N4001
1N751	1N4007	1N4735	1N5404	1N4004
1N753	C106B1	1N4742	1N5408	1N4148

82587	270 pc. Diode kit	5.0 lbs.	$39.95	$35.95
130366	Refill for 82587 (270 pc.)	0.3 lbs.	24.95	22.95

Transistor Kit $54 VALUE

Includes 180 pcs. (15 types) NPN, PNP Transistors

5 each	5 each	10 each	10 each	30 each
TIP31A	MPF102	PN2907	MPSA13	PN2222
TIP41A	2N3055	2N2907A	2N4401	2N3904
TIP120	2N5951	2N2222A	2N4403	2N3906

82595	180 pc. Transistor kit	5.1 lbs.	$49.95	$44.95
130374	Refill for 82595 (180 pc.)	0.4 lbs.	34.95	31.49

See page 76 for Clip-on Heat Sink
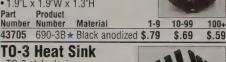
TO-3 Heat Sink
- TO-3 package
- Black anodized
- 4.8"L x 1.5"W x 1.3"H

Part Number	Product Number	Type	1-9	10-99	100+
16512	DUDE4★	TO-3	$3.95	$3.49	$2.95

TO-3/TO-220 Heat Sink
- TO-3/220 package (1)
- TO-220 package (2)
- 1.9"L x 1.9"W x 1.3"H

Part Number	Product Number	Material	1-9	10-99	100+
43705	690-3B★	Black anodized	$.79	$.69	$.59

TO-3 Heat Sink
- TO-3 style devices
- Pre-mounted metal spacers
- Black anodized aluminum
- 1.9"L x 1.4"W x 1.1"H (H dimension includes spacer height)

Part Number	Product Number	Type	Price
107289	601FBSO	TO-3	Closeout $.49

TO-5 Heat Sink
- Black anodized aluminum
- 1.3"W x 0.5"H x 0.4"D

Part Number	Product Number	Type	Price
107300	THM6201	TO-5	Closeout $.05

TO-220 Heat Sink Clip
- Light weight aluminum
- 1.0"W x 0.8"H x 0.4"D

Part Number	Product Number	Type	1-9	10-99	100-999	1000+
107297	MK220	TO-220	$.29	$.25	$.19	$.12

Heat Sink Compound
This silicone free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave solder baths.
- 2 oz. tube • Weight: 0.2 lbs.
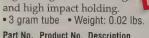
Part No.	Product No.	Description	1-9	10-99
142640	1978DP	Heat sink comp.	$9.95	$8.95
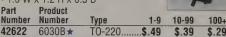
Tech Hold® Adhesive
This general purpose cyanoacrylate adhesive exhibits high strength, fast bonding, and high impact holding.
- 3 gram tube • Weight: 0.02 lbs.

NEW

Part No.	Product No.	Description	1-9	10-99
146421	2503DP	Adhesive	$1.95	$1.75

TO-220 Heat Sink
- TO-220 package
- Black anodized
- 1.0"W x 1.2"H x 0.5"D

.200" tabs (3)

Part Number	Product Number	Type	1-9	10-99	100+
42622	6030B★	TO-220	$.49	$.39	$.29

TO-220 Heat Sink
- TO-220 package
- Black anodized
- 1.0"W x 0.9"H x 0.4"D

Part Number	Product Number	Type	1-9	10-99	100+
40504	291-36H★	TO-220	$.49	$.39	$.29

TO-220 Heat Sink
- TO-220 case styles
- Aluminum
- 1.0"W x 1.2"H x 0.5"D

Part Number	Product Number	Type	1-9	10-99	100+
70914	MB206	TO-220	$.49	$.39	$.29

TO-220 Heat Sink
- Wave solderable
- TO-220 case styles
- Black anodized aluminum
- 1.0"W x 1.2"H x 0.5"D

.150" tabs (2)

Part Number	Product Number	Type	1-9	10-99	100+
70771	MB209	TO-220	$.59	$.49	$.29

TO-220 Heat Sink
- TO-220 case styles
- Good for high power devices
- Aluminum
- 2.0"W x 1.6"H x 0.8"D

.123" tabs (2)

Part Number	Product Number	Type	1-9	10-99	100+
71301	MB213	TO-220	$.89	$.69	$.59
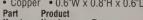
TO-126/TO-220 Heat Sink
- Aluminum
- Bendable tabs for mounting to PCBs (.15"L x .06"W)
- 0.9"W x 1.3"H x 0.3"D

Part Number	Product Number	Type	1-9	10-99	100+
134973	PSB2-1U	TO-126/127/220	$.39	$.29	$.12

TO-220 Heat Sink
- Thermalloy #THM7141
- Single solder tab .097"
- Copper • 0.6"W x 0.8"H x 0.6"D

Part Number	Product Number	Type	1-9	10-99	100+
133073	THM7141	TO-220	$.25	$.19	$.09

Thermoelectric Cooler w/ Heat Sink
Solid state heat pumps that utilize the Peltier effect to transfer heat from one side of the pump to the other for cooling up to 60°C.
- Maximum operating temperature: 100°C
- Recommend fan – P/N 102875 (pg 59), 12VDC @ 740mA (fan installation is left up to the customer to meet their specific application)
- Heat or cool by changing direction of current
- Rated lifetime over 200,000 hours
- For stationary use recommend 13.8VDC @10A supply P/N 138667, pg 64 (operates on 15.4VDC max) • 18 (AWG) wire leads
- Can be operated from a 12V car battery
- Removed from original equipment • Weight: 1.9 lbs.
- Size: Heat sink: 5.0"L x 5.0"W x 1.3"H
  Pump: 2.7"L x 1.8"W x 1.2"H
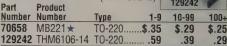
Part No.	Description	1-4	5-9
131975	Thermoelectric cooler	$29.95	$26.95
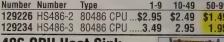
TO-220 Heat Sink
- Black anodized aluminum
- Plastic power semi-conductor devices
- 0.7"W x 0.8"H x 0.4"D (P/N 70658)
- 1.0"W x 1.2"H x 0.5"D (P/N 129242)

129242

Part Number	Product Number	Type	1-9	10-99	100+
70658	MB221★	TO-220	$.35	$.29	$.25
129242	THM6106-14	TO-220	.59	.39	.29

486 CPU Heat Sink
- Adhesive tape application
- 1.7"L x 1.6"W x 0.4"H (P/N 129226)
- 1.7"L x 1.6"W x 0.7"H (P/N 129234)

129234

Part Number	Product Number	Type	1-9	10-49	50-99
129226	HS486-2	80486 CPU	$2.95	$2.49	$1.49
129234	HS486-3	80486 CPU	3.49	2.95	1.95

486 CPU Heat Sink
- Snap-in installation
- 1.9"L x 1.9"W x 0.3"H

Part Number	Product Number	Type	1-9	10-49	50-99
85497	HS486	80486 CPU	$2.95	$2.49	$2.25

TO-3 and TO-220 Heat Sink Mounting Kits
- TO-3 and TO-220 heat sink insulator assemblies
- 10 per pack

34121
34139

Part Number	Product Number	Type	1-9	10-49	50-99
34139	T3	TO-3, 12 pc. kit	$4.95	$4.49	$3.95
34121	T2★	TO-220, 5 pc. kit	3.95	3.49	2.95
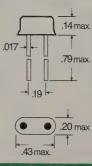
Low Profile Microprocessor Crystals

Microprocessor HC-49/US Crystals
Quartz crystals serve as an exceptional time base for microprocessor circuits providing high reliability and long term clock stability.
- Frequency range: 3.5 to 70.0MHz
- Operating temperature: -10°C to +60°C
- Drive level: 0.5mW (fundamental frequency)
- Frequency stability tolerance: ±50ppm
- Aging: ±5ppm/year maximum

.14 max.
.017
.79 max.
.19
.20 max.
.43 max.

Part Number	Product Number	Frequency (MHz)	Impedance	Resistance	Microprocessor	1-9	10-49	50-99	OEM 100+
137816	CY3.57LP	3.579545	17pf	150Ω max.	MC6801, 2, 3 / MM5369	$1.05	$.85	$.75	$.65
137824	CY3.68LP	3.6864	18pf	150Ω max.	8748 / 8035-8	1.05	.85	.75	.65
137832	CY4LP	4.000	17pf	120Ω max.	MCS-40 / MC6802, 8, 9 / CDP1802	1.05	.85	.75	.65
137841	CY7.37LP	7.3728	20pf	70Ω max.	8051 / 8031	1.05	.85	.75	.65
137859	CY8LP	8.000	Series	60Ω max.	IM6100A / MC68B09	1.05	.85	.75	.65
137867	CY10LP	10.000	Series	50Ω max.	MCS-85 / 8085A-2	1.05	.85	.75	.65
137875	CY11.05LP	11.0592	Series	50Ω max.	General purpose	1.05	.85	.75	.65
137883	CY12LP	12.000	Series	40Ω max.	MCS-86 / 8086 / 8284 / 8202	1.05	.85	.75	.65
137891	CY16LP	16.000	Series	40Ω max.	8080 / 8224 / general purpose	1.05	.85	.75	.65
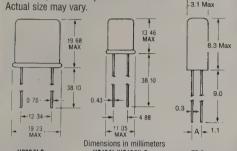
Microprocessor Crystals

Crystals are used as a time base or as a time function to ensure the most reliable clock stability for microprocessor circuits. In the table to the right, we have listed the case and style of the crystal. If it is parallel resonance, the load capacitance is listed. Actual size may vary.
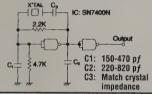
14728

Dimensions in millimeters

HC33/U Case   HC49/U (HC18/U) Case   TF Case

- Frequency calibration tolerance: ± 50ppm @ 25°C
- Operating temperature: -10°C to +60°C
- Drive level: 4.0 mW maximum
- Frequency stability tolerance: ±50 ppm from -10°C to +60°C
- Shunt capacitance: 7pf maximum

Application Reference (4~14MHz)
(Parallel Resonance)

C1: 150-470 pf
C2: 220-820 pf
C3: Match crystal impedance

HC33/U CASE

Part Number	Product Number	Frequency (MHz)	Impedance	Microprocessor	1-9	10-49	50-99	OEM Price 100+
14349	CY1★	1.0	13pf	MC6800/6808/6809E/6500 series	$5.95	$5.49	$4.95	$4.49
14357	CY1.84	1.8432	Series	MC14411/CDP1802/CDP1804	1.49	1.25	.99	.85
14470	CY2	2.0	20pf	2650/F-8/MC6800,02/6500 series			Closeout	1.49

HC49/U (HC18/U) CASE

Part Number	Product Number	Frequency (MHz)	Impedance	Microprocessor	1-9	10-49	50-99	OEM Price 100+
102613	CY1.843	1.8432	18pf	MC14411/MC6802	$1.75	$1.49	$.99	$.79
102621	CY2.0	2.0	Series	2650/F-8	1.95	1.69	1.19	.99
101274	CY2.457	2.4576	32pf	CDP1702/1802C/1804/1804C	1.15	.95	.75	.65
14525	CY3.27	3.2768	18pf	IM6100C/CDP1802/CDP1804	1.15	.95	.75	.65
14533	CY3.57★	3.579545	18pf	MC6801,2,3/MM5369	1.05	.85	.65	.49
14568	CY3.68	3.6864	18pf	8748/8035-8	1.05	.85	.65	.49
14592	CY4★	4.0	20pf	MCS-40/MC6802,8,9/CDP1802	1.05	.85	.65	.49
102630	CY4.433	4.433619	18pf	Signetics 2650	1.05	.85	.65	.49
14621	CY4.91	4.9152	Series	CDP1802C/1804/1804C	1.05	.85	.65	.49
14664	CY5.06	5.0688	Series	COM5016/5016T/5031	1.05	.85	.65	.49
14681	CY6	6.0	18pf	MCS-48/IM8048	1.05	.85	.65	.49
14699	CY6.14	6.144	30pf	MCS-85/8085	1.05	.85	.49	.45
14710	CY7.37	7.3728	30pf	8051/8031	1.05	.85	.65	.49
14728	CY8★	8.0	Series	IM6100A/MC68B09	1.05	.85	.65	.49
14381	CY10★	10.0	Series	MCS-85/8085A-2	1.05	.85	.65	.49
120061	CY11.05★	11.0592	Series	General purpose	1.05	.85	.65	.49
14402	CY12★	12.0	Series	MCS-86/8086/8284/8202	1.05	.85	.65	.49
14437	CY14.31	14.31818	Series	8080/8224/general purpose	1.05	.85	.49	.45
14453	CY16	16.0	Series	8080/8224/general purpose	1.05	.85	.65	.49
14517	CY20	20.0	Series	MCS-80/8080A/8224	1.05	.85	.65	.49
14648	CY49.43	49.435	24pf	LM1872N			Closeout	.49
14656	CY49.89	49.890	Series	LM1871N	1.15	.95	.75	.65

TF CASE
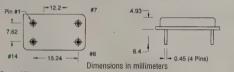
Part Number	Product Number	Frequency (MHz)	Impedance	Microprocessor	1-9	10-49	50-99	OEM Price 100+
14584	CY32.76	32.768kHz	10.5pf	Tuning fork	$.89	$.75	$.49	$.39

TTL Crystal Clock Oscillators (full can) and Socket

102681

A single component oscillator utilizing a combination of thick film hybrid and quartz crystal technology. Suitable for use in computer and digital based equipment.

Dimensions in millimeters

Specifications
- Input voltage: +5VDC, ±0.5VDC
- OSC series oscillators fit into a standard 14-pin DIP socket PN 37209 (pg 43)
- Frequency stability ±100ppm
- Operating temperature: 0°C to 70°C

Pin #	Function
1*	N/C
7	GND
8	Output
14	+5VDC
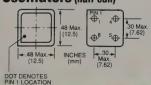
Output Waveforms

133006

Part No.	Product No.	Frequency (MHz)	Input Current	Rise Fall time	Max Input Curr.	Output Curr.	1-9	10-99	100-999	1000+
27861	OSC1	1.0	45mA	15ns	7mA	-1mA	$3.75	$3.19	$2.65	$2.25
27879	OSC1.84	1.8432	45mA	15ns	7mA	-1mA	2.49	2.25	1.95	1.49
27924	OSC2	2.0	30mA	15ns	7mA	-1mA	2.49	2.25	1.95	1.75
27967*	OSC4	4.0	50mA	10ns	7mA	-1mA	2.49	2.25	1.95	1.75
27991	OSC8	8.0	30mA	15ns	15mA	-3mA	1.49	1.25	.89	.75
27887	OSC10	10.0	20mA	10ns	15mA	-3mA	1.49	1.25	.89	.75
144207	OSC11.05	11.059	30mA	10ns	50mA	-3mA	2.75	2.25	1.95	1.75
27895	OSC12	12.0	50mA	10ns	15mA	-3mA	1.49	1.25	.89	.75
108652	OSC14.31	14.31818	50mA	10ns	15mA	-3mA	1.49	1.25	.69	.59
27908	OSC16	16.0	50mA	10ns	15mA	-3mA	1.49	1.25	.69	.59
27932	OSC20	20.0	20mA	10ns	17mA	-3mA	1.49	1.25	.89	.75
102681	OSC24	24.0	20mA	7ns	17mA	-3mA			Closeout	.49
76814	OSC25	25.0	15mA	7ns	18mA	-3mA	1.49	1.25	.89	.75
27941	OSC32	32.0	15mA	7ns	18mA	-4mA	1.49	1.25	.69	.59
27959	OSC32.76	32.768kHz	15mA	6ns	18mA	-4mA	3.75	3.19	2.65	2.25
76822	OSC33	33.0	15mA	6ns	18mA	-4mA	2.35	1.95	1.69	1.49
27975*	OSC40	40.0	15mA	6ns	18mA	-4mA	1.49	1.25	.89	.75
76831	OSC50	50.0	25mA	6ns	25mA	-4mA	1.49	1.25	.89	.75
78721	OSC66.66	66.66	80mA	6ns	25mA	-4mA	1.49	1.25	.89	.75
77489	OSC80	80.0	80mA	3ns	25mA	-4mA	2.95	2.49	1.75	1.49
76857	OSC100	100.0	90mA	3ns	25mA	-4mA	3.75	3.19	2.65	2.25

*(Pin 1 must be grounded/tri state)

Part No.	Description	1-9	10-49	50-99	100+
133006	14-pin full can oscillator socket, low profile soldertail	$1.05	$.85	$.65	$.45

TTL Crystal Clock Oscillators (half can)

DOT DENOTES PIN 1 LOCATION

Pin #	Function
1	N/C
4	GND
5	Output
8	+5VDC

- OSCH series oscillators fit into a standard 8-pin DIP socket. P/N 51633 (pg 43)
- Input voltage: +5VDC, ±0.5VDC   • Frequency stability: ±100ppm
- Operating temperature: 0°C to 70°C

Part Number	Product Number	Frequency (MHz)	Input Current	Rise Fall time	Max Input Current	Output Current	1-9	10-49	50-99	OEM Price 100+
95249	OSC1H	1.0	45mA	6ns	30mA	-0.4mA	$3.95	$3.49	$2.95	$2.49
95257	OSC1.84H	1.8432	45mA	6ns	30mA	-0.4mA			Closeout	.75
102779	OSC10H	10.0	30mA	6ns	30mA	-0.4mA	2.95	2.49	1.95	1.75
95281	OSC32H	32.0	15mA	6ns	40mA	-0.4mA			Closeout	.75

We carry major manufacturers – call for pricing on quantities over 5000.

4-lead Molded Case   4-Pin DIP Case   179-01 Case   DL-35/41 (SMT) Case   DO-5 Case   TO-65 Case   TO-92 Case

DO-7/27A/35/41 Case   DO-201AD/1.5KE   TO-220/AB Case   TO-202 Case   TO-126 Case   SOT-23 Case

Zener Diodes

Part Number	Product Number	NTE/ECG	Case	Description	1-9	10-99	100-999	OEM 1000+
36290	1N751★	5010A	DO-35	5.1V@20mA 500mW	$.11	$.08	$.06	$.05
36302	1N753	5013A	DO-35	6.2V@20mA 500mW	.11	.08	.06	.05
36089	1N4732	5096	DO-41	4.7V@53mA 1 W	.19	.15	.10	.07
36097	1N4733★	135A	DO-41	5.1V@49mA 1 W	.19	.15	.11	.08
36118	1N4734★	136A	DO-41	5.6V@45mA 1 W	.22	.17	.13	.10
36126	1N4735★	137A	DO-41	6.2V@41mA 1 W	.22	.17	.13	.08
36169	1N4742★	142A	DO-41	12.0V@21mA 1 W	.22	.17	.13	.08
36185	1N4744★	145A	DO-41	15.0V@17mA 1 W	.22	.17	.13	.10
140126	1N5245B	5024A	DO-35	15.0V@8.5mA .5 W	.19	.15	.10	.07

Switching Diodes

Part Number	Product Number	NTE/ECG	Case	Description	1-9	10-99	100-999	OEM 1000+
140257	1N3595	177	DO-35	150 PRV@1mA 200mA	$.55	$.45	$.35	$.25
35967	1N3600★	519	DO-35	50 PRV 200mA	.15	.12	.09	.07
36038	1N4148★	519	DO-35	75 PRV@50µa 10mA	.05	.04	.03	.02
36311	1N914	519	DO-35	75 PRV@5µa 10mA	07	.06	.05	.04

General Purpose Diode

Part Number	Product Number	NTE/ECG	Case	Description	1-9	10-99	100-999	OEM 1000+
35941	1N270	109	DO-7	80 PRV 200mA	$.35	$.29	$.25	$.22

Silicon Rectifiers

Part Number	Product Number	NTE/ECG	Case	Description		1-9	10-99	100-999	OEM 1000+
35975	1N4001★	116	DO-41	50 PRV	1 amp	$.06	$.05	$.04	$.03
76961	1N4002	116	DO-41	100 PRV	1 amp	.06	.05	.04	.03
76970	1N4003	116	DO-41	200 PRV	1 amp	.06	.05	.04	.03
35991	1N4004★	116	DO-41	400 PRV	1 amp	.06	.05	.04	.03
76988	1N4005	116	DO-41	600 PRV	1 amp	.07	.06	.05	.04
76996	1N4006	125	DO-41	800 PRV	1 amp	.07	.06	.05	.04
36011	1N4007★	125	DO-41	1000 PRV	1 amp	.07	.06	.05	.03
77075	1N5400	5800	DO-27A	50 PRV	3 amp	.19	.15	.11	.08
36249	1N5401★	5801	DO-27A	100 PRV	3 amp	.19	.15	.11	.08
77083	1N5402	5802	DO-27A	200 PRV	3 amp	.17	.13	.10	.08
36265	1N5404★	5804	DO-27A	400 PRV	3 amp	.19	.15	.11	.08
77091	1N5406	5806	DO-27A	600 PRV	3 amp	.19	.15	.11	.08
77104	1N5407	5808	DO-27A	800 PRV	3 amp			Closeout	.08
36273	1N5408★	5809	DO-27A	1000 PRV	3 amp	.32	.25	.19	.15
139328	FEP16DT	6240	TO-220AB	200 PRV	16 amp			Closeout	.65
139310	1N5820	586	DO-201AD	20 PRV	3 amp			Closeout	.19

Stud Rectifier

Part Number	Product Number	NTE/ECG	Case	Description		1-9	10-99	100-999	OEM 1000+
35924	1N1188	5990	DO-5	400 PRV	35 amp	$2.95	$2.49	$2.25	$1.95

Surface Mount Diodes (100 pc. min)

Part Number	Product Number	NTE/ECG	Case	Description	1-9	10-99	100-999	OEM 1000+
94924	1N4004SM	—	DL-41	400 PRV 1 amp	$.17	$.13	$.07	$.06
94908	1N4148SM	—	DL-35	75 PRV@50µa 10mA (1N 914)	.15	.12	.07	.06

Silicon Controlled Rectifiers (SCR) *Isolated

Part Number	Product Number	NTE/ECG	Case	Description		1-9	10-99	100-999	OEM 1000+
119802	2N5060	5400	TO-92	25 PRV 0.8A		$.35	$.29	$.25	$.22
120070	2N5062	5402	TO-92	100 PRV 0.8A		.49	.39	.35	.29
14736	C106B1	5455	TO-202	200 PRV	4A (2N6239)*	.75	.59	.49	.39
14752	C122B	5463	TO-220	200 PRV	8A*	1.25	.99	.75	.65
14761	C122M	5466	TO-220	600 PRV	8A*	1.35	1.15	.95	.75
140417	2N6507	5554	TO-220AB	400 PRV	25A	1.95	1.49	1.25	.99
14859	C38M	5547	TO-65	600 PRV	35A (2N3899)	4.95	3.95	3.49	2.95

Full Wave Bridge Rectifiers

Part Number	Product Number	NTE/ECG	Case	Description		1-9	10-99	100-999	OEM 1000+
103018	W02G★	—	4-lead molded	200 PRV	1 amp	$.49	$.39	$.35	$.29
102980	W04G	—	4-lead molded	400 PRV	1 amp	.49	.39	.35	.29
102998	W06G	—	4-lead molded	600 PRV	1 amp	.49	.39	.35	.29
103000	DF01M★	5332	4-pin DIP	100 PRV	1 amp	.55	.45	.39	.32
103042	DF02M	5332	4-pin DIP	200 PRV	1 amp	.55	.45	.39	.32
102971	DF04M	5332	4-pin DIP	400 PRV	1 amp	.65	.55	.45	.35
103034	DF06M	5332	4-pin DIP	600 PRV	1 amp	.55	.45	.39	.32
145429	KBP02M	—	4-lead molded	200 PRV	1.5 amp	.69	.59	.49	.39
119562	KBP04M	—	4-lead molded	400 PRV	1.5 amp	.89	.69	.39	.35
145411	KBP06M	—	4-lead molded	600 PRV	1.5 amp	.99	.79	.69	.59
145402	KBP10M	—	4-lead molded	1000 PRV	1.5 amp	1.09	.89	.79	.69
25574	MDA990-3★	5322	179-01	200 PRV	30 amp	3.95	3.49	2.95	2.49
25591	MDA990-6	5326	179-01	600 PRV	30 amp	4.95	3.95	3.49	2.95

Triacs

Part Number	Product Number	NTE/ECG	Case	Description		1-9	10-99	100-999	OEM 1000+
140425	2N6071A	5603	TO-126	200 PRV 4A		$.99	$.75	$.49	$.39
31819	SC146B	5633	TO-220	200 PRV 10A (2N6342)		1.49	1.29	1.09	.89
31827	SC146M	5637	TO-220	600 PRV 10A (2N6344)		1.75	1.49	1.25	1.09
139336	Q4015L5	56020	TO-220AB	400 PRV 15A (Q4015L5)		1.85	1.59	1.39	1.29

Bidirectional Transient Voltage Suppressors

Part Number	Product Number	NTE/ECG	Case	Description		1-9	10-99	100-999	OEM 1000+
103114	1.5KE6.8CA	4903	1.5KE	6.8V @10mA	1500W	$1.25	$.99	$.75	$.65
103106	1.5KE15CA	4921	1.5KE	15V @1mA	1500W	1.25	.99	.69	.65

Silicon Planar Epitaxial High Speed Diodes

140185   140177   140206   140193
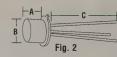
Part Number	Product Number	NTE/ECG	Case	Description	1-9	10-99	100-999	OEM 1000+
140185	BAS16	593	SOT-23	75 PRV@1.0µa 250mW	$.19	$.15	$.11	$.08
140177	BAW56	596	SOT-23	70 PRV@2.5µa 215mW	.19	.15	.11	.08
140206	BAV70	595	SOT-23	70 PRV@5.0µa 100mW	.19	.15	.11	.08
140193	BAV99	—	SOT-23	70 PRV@2.5µa 215mW	.19	.15	.11	.08

Infrared Diodes and Detectors

Infrared Diodes and Visible Light Detectors

- Use for remote control or fiber optics
- P/N 133946 can be used w/ cameras – see pg 107 (peak emission wavelength – 940nm @ 1F 20mA)

Fig. 1   Fig. 2   Fig. 3   134834

Part Number	Product Number	Color	Fig.	Description	Size	Diameter inch/mm	A	B	C	D	Vf @ If (mA)	nm	1-9	10-99	100-999	OEM Price 1000+
112150	TLN100★	Infrared	1	Infrared diode	T1	.125/3	0.18	0.95	0.98	0.03	1.2V @ 20mA	940	$.45	$.35	$.25	$.19
112176	IRD300★	Infrared	1	Infrared detector	T1	.12/3	0.18	0.95	0.98	0.03	—	940	.45	.35	.25	.19
133946	SLI-0308CP	Infrared	1	Infrared diode lamp	T1	.12/3	0.22	0.98	1.00	0.03	1.7V @ 50mA	940	1.09	.89	.79	.69
106526	TLN110★	Infrared	1	Infrared diode	T1¾	.200/5	0.34	0.78	0.84	0.04	1.6V @ 20mA	940	.45	.35	.19	.15
112168	IRD500★	Infrared	1	Infrared detector	T1¾	.200/5	0.31	1.05	1.10	0.04	—	940	.45	.35	.19	.15
120221	BPW77	—	2	Visible light detector	TO-18	—	0.24	0.19	0.52	—	—	800	1.09	.89	.69	.65
124417	L104HB	Infrared	3	Infrared diode	Rect.	—	0.09	0.45	0.45	0.16	1.5V @ 30mA	940	.39	.29	.19	.15
124020	TP104	Infrared	3	Photo transistor	Rect.	0.16/4	0.09	0.45	0.45	0.16	—	850	.39	.29	.19	.15

- Isolates a signal optically, as opposed to electronically
- Protects equipment from feedback, surges, spikes and noise • Wt.: .001 lbs.
- Sockets – see pages 43, 44, 46

Fig. 1   Fig. 2   Fig. 3   Fig. 4   Fig. 5   Fig. 6 (ZERO CROSSING CIRCUIT)   Fig. 7   114091   114104   117436

Fig. 8   Fig. 9   Fig. 10   Fig. 11   Fig. 12   Fig. 13   Fig. 14   Fig. 15   114008   113929   114075
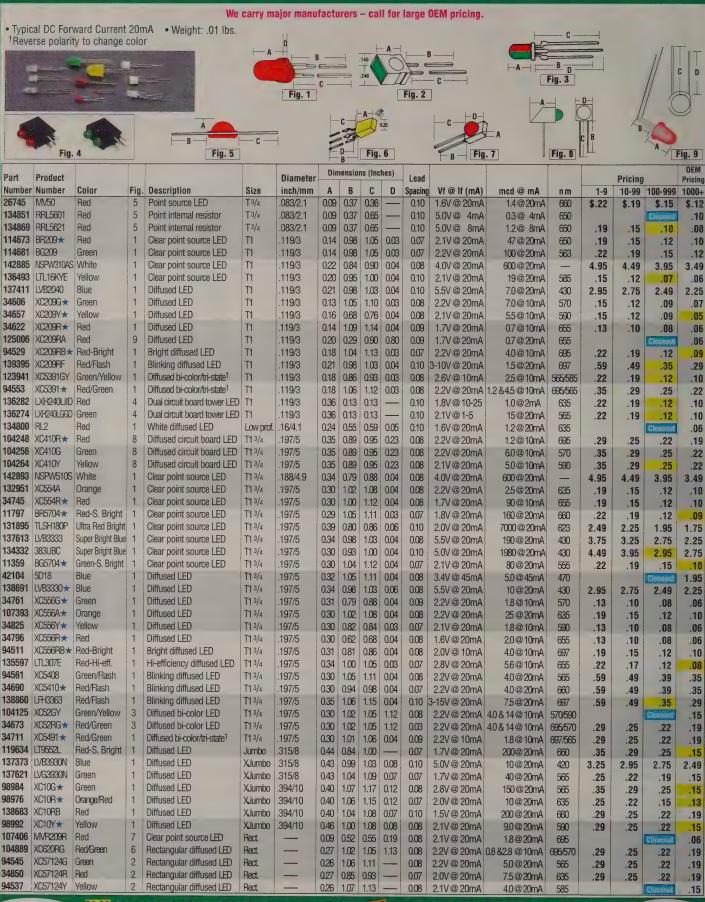
Optoelectronic's Book – see page 29

Fig. 16   Fig. 17   Fig. 18   Fig. 19   Fig. 20   Fig. 21   Fig. 22   Fig. 23   Fig. 24

Part Number	Product Number	NTE/ ECG	Fig.	Pins	Description	Forward (V)	Input Current (mA)	Blocking Voltage (V)	Isolation (kV)	Pricing 1-9	10-99	100-499	OEM 500-999
40985	4N25★	3040	3	6	Diode, NPN photo transistor	1.5	10	30	2.5	$.45	$.35	$.25	$.23
41005	4N26	3040	3	6	Diode, NPN photo transistor	1.5	10	30	1.5	.45	.35	.29	.25
144240	4N27	3040	3	6	Diode, NPN photo transistor	1.2	10	30	5.3	.35	.29	.25	.19
41013	4N28	3040	3	6	Diode, NPN photo transistor	1.5	10	30	0.5		SALE	.25	.19
41021	4N32	3083	8	6	Diode, NPN photo-darlington	1.5	10	30	2.5	.45	.35	.29	.25
41030	4N33★	3083	8	6	Diode, NPN photo-darlington	1.5	10	30	1.5	.45	.35	.29	.25
41056	4N35★	3041	3	6	Diode, NPN photo transistor	1.5	10	30	3.5	.45	.35	.29	.25
95011	4N37	3041	3	6	Diode, NPN photo transistor	1.5	10	30	1.5	.45	.35	.25	.23
42471	6N136	3092	9	8	High speed NPN transistor	1.7	16	4.5	2.5	.89	.79	.69	.65
113911	6N137	3087	11	8	Very high speed logic coupler	1.75	5	STTL/TTL	2.5	1.25	1.09	.95	.85
42489	6N138	3093	10	8	High speed, high gain darlington	1.7	1.6	4.5	2.5	.89	.79	.59	.55
113929	6N139	3093	10	8	High speed, high gain darlington	1.7	1.6	4.5	2.5	1.09	.99	.79	.75
18825	H11AA1	3089	1	6	Dual infrared diode, NPN photo transistor	1.5	20	30	2.5	.79	.69	.55	.49
18833	H11C3	3046	2	6	Photo SCR output	1.2	14	200	5	.95	.85	.69	.65
114008	H11C4	3091	2	6	Photo SCR output	1.5	11	400	5	1.15	.95	.85	.75
113996	H11F1	3085	12	6	Isolated FET (200-ohm ON resistance)	1.75	16	30	2.5	2.25	1.95	1.65	1.55
138026	H11D1SM	3088	3	6	300V transistor output (surface mount)	1.5	10	300	7.5	.79	.69	.59	.55
113988	H11L1	3090	7	6	Schmitt trigger output photocoupler	1.5	1.6	STTL/TTL	5	.99	.89	.79	.69
114091	H21A1	3100	14	4	Single channel, slotted interrupter w/ tabs	1.7	60	30	—	1.09	.99	.89	.79
114104	H22A1	3102	14	4	Single channel, slotted interrupter w/o tabs	1.7	60	30	—	1.49	1.25	1.09	.99
138034	IS205	—	19	6	Baseless transistor output	0.4	10	30	5.3	.79	.69	.59	.55
138042	ISP814-3	—	22	4	Low power AC input transistor output	1.4	20	35	5	1.29	1.15	.99	.89
138051	ISP815-3	—	23	4	Low power darlington output	1.4	20	35	5	.99	.89	.79	.75
138069	ISP817-3	—	17	4	Low power transistor output	1.4	20	35	5	.89	.79	.69	.65
138077	ISP827-3	—	20	8	Low power dual coupler	1.4	20	35	5	1.59	1.45	1.29	1.15
138085	ISP847-3	—	21	16	Low power quad coupler	1.4	20	35	5	2.95	2.75	2.49	2.25
138093	ISTS708	—	18	4	Reflective opto switch	1.7	40	30	—	2.49	2.29	2.09	1.89
138106	ISTS802	—	16	4	5mm gap interrupter opto switch	1.3	10	30	—		SALE	1.75	1.55
114083	ISQ203	—	13	16	Quad channel NPN photo transistor (225 CTR)	1.5	20	30	7.5	2.95	2.49	2.25	1.95
114075	ISQ204	—	13	16	Quad channel NPN photo transistor (200 CTR)	1.5	20	30	7.5	2.75	2.49	1.95	1.85
144215	LTH306-1	—	24	6	Single channel, slotted interrupter w/o tabs	1.6	20	30	—	.99	.89	.79	.69
142914	LTV713V	—	3	6	High isolation voltage type, NPN photocoupler	1.4	20	35	5	.45	.35	.25	.19
24900	MCT2	3042	3	6	Diode, NPN photo transistor	1.5	60	30	3.5	.45	.35	.29	.25
24918	MCT6	3086	4	8	Dual channel NPN photo transistor	1.3	100	30	7.5	.85	.75	.65	.59
26278	MOC3010★	3047	5	6	Bilateral triac driver	1.5	50	250	7.5	.65	.55	.45	.39
95020	MOC3011	3047	5	6	Bilateral triac driver	1.5	10	250	7.5	.59	.55	.45	.39
95038	MOC3021	3048	5	6	Bilateral triac driver	1.5	10	400	7.5	.69	.59	.49	.45
113937	MOC3022	3048	5	6	Bilateral triac driver	1.5	30	400	7.5	.69	.59	.45	.42
26294	MOC3031	3049	6	6	Zero crossing triac driver	1.5	30	250	7.5	1.29	1.15	.89	.79
113953	MOC3032	3049	6	6	Zero crossing triac driver	1.5	30	250	7.5	1.29	1.15	.99	.89
113961	MOC3042	—	6	6	Zero crossing triac driver	1.5	30	400	7.5	1.49	1.25	.99	.89
133874	MOC3063	—	6	6	Zero crossing triac driver	1.5	30	600	7.5	1.49	1.25	.99	.89
117436	OPB3849B	—	15	4	Single channel, slotted interrupter w/ tabs	1.2	20	30	—			Closeout	.19
28433	PC900V	—	7	6	Schmitt trigger output photocoupler	1.4	4	STTL/TTL	5		SALE	1.35	1.25
115861	SFH600-2	—	3	6	Diode, NPN photo transistor (MCT275)	1.65	60	70	2.8	.45	.35	.25	.19

CDS Photocells

• Operating temperature: -30°C to +70°C • Cadmium Sulfide (CDS) • Soldering: 230°C for 3 seconds • Weight: .002 lbs.
• Generate variable signal based on detection of light levels • Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers

Part Number	Product Number	Rating mW	Vp	Resistance (Ω) Light	Dark	Diameter	Lead Spacing	Lead Length	Pricing 1-9	10-99	100-499	OEM 500-999
136047	CDST05	250	50	10K	100K	0.29"	0.18"	1.50"	$.75	$.59	$.35	$.29
136055	CDST08	250	50	10K	100K	0.44"	0.30"	1.50"	.75	.59	.25	.19
120299	CDS004	250	250	12K	1M	0.43"	0.30"	1.44"	1.79	1.49	1.19	.89
136063	CDST18	40	20	10K	100K	0.16"	0.10"	1.50"	.55	.45	.29	.25
120310	CDS002	125	150	25K	2M	0.16"	0.10"	1.44"	1.25	.99	.79	.59
120301	CDS003	150	200	15K	500K	0.28"	0.20"	1.44"	1.69	1.39	1.09	.79

120301   120299

- Typical DC Forward Current 20mA • Weight: .01 lbs.
  [1] Reverse polarity to change color

Fig. 1 Fig. 2 Fig. 3

Fig. 4 Fig. 5 Fig. 6 Fig. 7 Fig. 8 Fig. 9

Part Number	Product Number	Color	Fig.	Description	Size	Diameter inch/mm	A	B	C	D	Lead Spacing	Vf @ If (mA)	mcd @ mA	n m	1-9	10-99	100-999	1000+
26745	MV50	Red	5	Point source LED	T3/4	.083/2.1	0.09	0.37	0.36	—	0.10	1.6V @ 20mA	1.4 @ 20mA	660	$.22	$.19	$.15	$.12
134851	RRL5601	Red	5	Point internal resistor	T3/4	.083/2.1	0.09	0.37	0.65	—	0.10	5.0V @ 4mA	0.3 @ 4mA	650			Closeout	.10
134869	RRL5621	Red	5	Point internal resistor	T3/4	.083/2.1	0.09	0.37	0.65	—	0.10	5.0V @ 8mA	1.2 @ 8mA	650	.19	.15	.10	.08
114673	BR209★	Red	1	Clear point source LED	T1	.119/3	0.14	0.98	1.05	0.03	0.07	2.1V @ 20mA	47 @ 20mA	650	.19	.15	.12	.10
114681	BG209	Green	1	Clear point source LED	T1	.119/3	0.14	0.98	1.05	0.03	0.07	2.2V @ 20mA	100 @ 20mA	563	.22	.19	.15	.12
142885	NSPW310AS	White	1	Clear point source LED	T1	.119/3	0.22	0.84	0.90	0.04	0.08	4.0V @ 20mA	600 @ 20mA	—	4.95	4.49	3.95	3.49
136493	LTL16KYE	Yellow	1	Clear point source LED	T1	.119/3	0.20	0.95	1.00	0.10	0.08	2.1V @ 20mA	19 @ 20mA	585	.15	.12	.07	.06
137411	LVB2040	Blue	1	Diffused LED	T1	.119/3	0.21	0.98	1.03	0.04	0.10	5.5V @ 20mA	7.0 @ 20mA	430	2.95	2.75	2.49	2.25
34606	XC209G★	Green	1	Diffused LED	T1	.119/3	0.13	0.95	1.10	0.03	0.08	2.2V @ 20mA	7.0 @ 10mA	570	.15	.12	.09	.07
34657	XC209Y★	Yellow	1	Diffused LED	T1	.119/3	0.16	0.68	0.76	0.04	0.08	2.1V @ 10mA	5.5 @ 10mA	590	.15	.12	.09	.05
34622	XC209R★	Red	1	Diffused LED	T1	.119/3	0.14	1.09	1.14	0.04	0.09	1.7V @ 10mA	0.7 @ 10mA	655	.13	.10	.08	.06
125006	XC209RA	Red	9	Diffused LED	T1	.119/3	0.20	0.29	0.90	0.80	0.09	1.7V @ 20mA	0.7 @ 10mA	655			Closeout	.06
94529	XC209RB★	Red-Bright	1	Bright diffused LED	T1	.119/3	0.18	1.04	1.13	0.03	0.07	2.2V @ 20mA	4.0 @ 10mA	695	.22	.19	.12	.09
139395	XC209RF	Red/Flash	1	Blinking diffused LED	T1	.119/3	0.21	0.98	1.03	0.04	0.10	3-10V @ 20mA	1.5 @ 20mA	697	.59	.49	.35	.29
123941	XC5391GY	Green/Yellow	1	Diffused bi-color/tri-state[1]	T1	.119/3	0.18	0.86	0.93	0.03	0.08	2.6V @ 10mA	2.5 @ 10mA	565/585	.22	.19	.12	.10
94553	XC5391★	Red/Green	1	Diffused bi-color/tri-state[1]	T1	.119/3	0.18	1.06	1.12	0.03	0.08	2.2V @ 20mA	1.2 &4.5 @ 10mA	695/565	.35	.29	.25	.22
136282	LXH240LJID	Red	4	Dual circuit board tower LED	T1	.119/3	0.36	0.13	0.13	—	0.10	1.8V @ 10-25	1.0 @ 2mA	635	.22	.19	.12	.10
136274	LXH240LGGD	Green	4	Dual circuit board tower LED	T1	.119/3	0.36	0.13	0.13	—	0.10	2.1V @ 1-5	15 @ 20mA	565	.22	.19	.12	.10
134800	RL2	Red	1	White diffused LED	Low prof.	.16/4.1	0.24	0.55	0.59	0.05	0.10	1.6V @ 20mA	1.2 @ 20mA	635			Closeout	.06
104248	XC410R★	Red	8	Diffused circuit board LED	T13/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.2V @ 20mA	1.2 @ 10mA	695	.29	.25	.22	.19
104256	XC410G	Green	8	Diffused circuit board LED	T13/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.2V @ 20mA	6.0 @ 10mA	570	.35	.29	.25	.22
104264	XC410Y	Yellow	8	Diffused circuit board LED	T13/4	.197/5	0.35	0.89	0.95	0.23	0.08	2.1V @ 20mA	5.0 @ 10mA	590	.35	.29	.25	.22
142893	NSPW510S	White	1	Clear point source LED	T13/4	.188/4.9	0.34	0.79	0.88	0.04	0.08	4.0V @ 20mA	600 @ 20mA	—	4.95	4.49	3.95	3.49
132951	XC554A	Orange	1	Clear point source LED	T13/4	.197/5	0.30	1.02	1.08	0.04	0.08	2.2V @ 20mA	2.5 @ 20mA	635	.19	.15	.12	.10
34745	XC554R★	Red	1	Clear point source LED	T13/4	.197/5	0.30	1.00	1.12	0.04	0.08	1.7V @ 10mA	90 @ 10mA	655	.19	.15	.12	.10
11797	BR5704★	Red-S. Bright	1	Clear point source LED	T13/4	.197/5	0.29	1.05	1.11	0.03	0.07	1.8V @ 20mA	160 @ 20mA	660	.22	.19	.12	.09
131895	TLSH180P	Ultra Red Bright	1	Clear point source LED	T13/4	.197/5	0.39	0.80	0.86	0.06	0.10	2.0V @ 20mA	7000 @ 20mA	623	2.49	2.25	1.95	1.75
137613	LVB3333	Super Bright Blue	1	Clear point source LED	T13/4	.197/5	0.34	0.98	1.03	0.04	0.10	5.5V @ 20mA	190 @ 20mA	430	3.75	3.25	2.75	2.25
134332	383UBC	Super Bright Blue	1	Clear point source LED	T13/4	.197/5	0.30	0.93	1.00	0.04	0.10	5.0V @ 20mA	1980 @ 20mA	430	4.49	3.95	2.95	2.75
11359	BG5704★	Green-S. Bright	1	Clear point source LED	T13/4	.197/5	0.30	1.04	1.12	0.04	0.07	2.1V @ 20mA	80 @ 20mA	555	.22	.19	.15	.10
42104	5D18	Blue	1	Diffused LED	T13/4	.197/5	0.32	1.05	1.11	0.04	0.08	3.4V @ 45mA	5.0 @ 45mA	470			Closeout	1.95
138691	LVB3330★	Blue	1	Diffused LED	T13/4	.197/5	0.34	0.98	1.03	0.06	0.08	5.5V @ 20mA	10 @ 20mA	430	2.95	2.75	2.49	2.25
34761	XC556G★	Green	1	Diffused LED	T13/4	.197/5	0.31	0.79	0.88	0.04	0.09	2.2V @ 20mA	1.8 @ 10mA	570	.13	.10	.08	.06
107393	XC556A★	Orange	1	Diffused LED	T13/4	.197/5	0.30	1.02	1.08	0.04	0.08	2.2V @ 20mA	25 @ 20mA	635	.19	.15	.12	.10
34825	XC556Y★	Yellow	1	Diffused LED	T13/4	.197/5	0.30	0.82	0.84	0.03	0.07	2.1V @ 20mA	1.8 @ 10mA	590	.13	.10	.08	.06
34796	XC556R★	Red	1	Diffused LED	T13/4	.197/5	0.30	0.62	0.68	0.04	0.08	1.6V @ 20mA	2.0 @ 10mA	655	.13	.10	.08	.06
94511	XC556RB★	Red-Bright	1	Bright diffused LED	T13/4	.197/5	0.31	0.81	0.86	0.04	0.08	2.0V @ 10mA	4.0 @ 10mA	697	.19	.15	.12	.10
135597	LTL307E	Red-Hi-eff.	1	Hi-efficiency diffused LED	T13/4	.197/5	0.34	1.00	1.05	0.03	0.07	2.8V @ 20mA	5.6 @ 10mA	655	.22	.17	.12	.08
94561	XC5408	Green/Flash	1	Blinking diffused LED	T13/4	.197/5	0.30	1.05	1.11	0.04	0.08	2.2V @ 20mA	4.0 @ 10mA	565	.59	.49	.39	.35
34690	XC5410★	Red/Flash	1	Blinking diffused LED	T13/4	.197/5	0.30	0.94	0.98	0.04	0.07	2.2V @ 20mA	4.0 @ 10mA	660	.59	.49	.39	.35
138860	LFH3363	Red/Flash	1	Blinking diffused LED	T13/4	.197/5	0.35	1.06	1.15	0.04	0.10	3-15V @ 20mA	7.5 @ 20mA	697	.59	.49	.35	.29
104125	XC52GY	Green/Yellow	3	Diffused bi-color LED	T13/4	.197/5	0.30	1.02	1.05	1.12	0.08	2.2V @ 20mA	4.0 & 14 @ 10mA	570/590			Closeout	.15
34673	XC52RG★	Red/Green	3	Diffused bi-color LED	T13/4	.197/5	0.30	1.02	1.05	1.12	0.03	2.2V @ 20mA	4.0 & 14 @ 10mA	695/570	.29	.25	.22	.19
34711	XC5491★	Red/Green	1	Diffused bi-color/tri-state[1]	T13/4	.197/5	0.30	1.01	1.06	0.04	0.09	2.2V @ 10mA	1.8 @ 10mA	697/565	.29	.25	.22	.19
119634	LT9552L	Red-S. Bright	1	Diffused LED	Jumbo	.315/8	0.44	0.84	1.00	—	0.07	1.7V @ 20mA	200 @ 20mA	660	.35	.29	.25	.15
137373	LVB3930N	Blue	1	Diffused LED	XJumbo	.315/8	0.43	0.99	1.03	0.08	0.10	5.0V @ 20mA	10 @ 20mA	420	3.25	2.95	2.75	2.49
137621	LVG3930N	Green	1	Diffused LED	XJumbo	.315/8	0.43	1.04	1.09	0.07	0.07	1.7V @ 20mA	40 @ 20mA	565	.25	.22	.19	.15
98984	XC10G★	Green	1	Diffused LED	XJumbo	.394/10	0.40	1.07	1.17	0.12	0.08	2.8V @ 20mA	150 @ 20mA	565	.35	.29	.25	.15
98976	XC10R★	Orange/Red	1	Diffused LED	XJumbo	.394/10	0.40	1.06	1.15	0.12	0.07	2.0V @ 20mA	10 @ 20mA	635	.25	.22	.15	.13
138683	XC10RB	Red	1	Diffused LED	XJumbo	.394/10	0.40	1.04	1.08	0.07	0.10	1.5V @ 20mA	200 @ 20mA	660	.29	.25	.22	.19
98992	XC10Y★	Yellow	1	Diffused LED	XJumbo	.394/10	0.46	1.00	1.08	0.08	0.08	2.1V @ 20mA	9.0 @ 20mA	590	.29	.25	.22	.15
107406	MVR209R	Red	7	Clear point source LED	Rect.	—	0.09	0.52	0.55	0.19	0.08	2.1V @ 20mA	1.8 @ 20mA	695			Closeout	.06
104889	XC620RG	Red/Green	6	Rectangular diffused LED	Rect.	—	0.27	1.02	1.05	1.13	0.08	2.2V @ 20mA	0.8 &2.8 @ 10mA	695/570	.29	.25	.22	.19
94545	XC57124G	Green	2	Rectangular diffused LED	Rect.	—	0.26	1.06	1.11	—	0.08	2.2V @ 20mA	5.0 @ 20mA	565	.29	.25	.22	.19
34850	XC57124R	Red	2	Rectangular diffused LED	Rect.	—	0.27	0.85	0.93	—	0.07	2.0V @ 20mA	7.5 @ 20mA	635	.29	.25	.22	.19
94537	XC57124Y	Yellow	2	Rectangular diffused LED	Rect.	—	0.26	1.07	1.13	—	0.08	2.1V @ 20mA	4.0 @ 20mA	585			Closeout	.15

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LED Displays

VALUE

The general advantages of LED displays (compared to incandescent types) are:
• Lower power consumption • Longer lifetime (averaged more than 300,000 hours) • Compact size which is suitable for instrumentation and graphic representations
Applications: • Home/consumer appliances • Industrial instrumentation • Indicators and numeric/alphanumeric information display • Indoor/outdoor graphic representations
Soldering: • Soldering bath: not more than 5 seconds @ 260°C • Soldering iron: not more than 3 seconds @ 300°C under 30W

24740 & 24782   33961   17187   24723   18737   32951   118906   140898   104117

7-Segment Displays

Part Number	Product Number	Pins/ Leads	Compatible with Jameco Socket	Character Height	Illuminated Color	Buss Polarity*	Vf (Max.)	If (Max.)	mcd @ If	Wavelength nm	Decimal Point	Pricing 1-9	Pricing 10-99	Pricing 100-249	OEM Pricing 250-499
24731	MAN71★	11	37161	.300"	Red	CA	1.6V	20mA	0.3	650	RHDP	$1.19	$.99	$.89	$.79
24740	MAN72★	11	37161	.300"	Red	CA	1.6V	20mA	0.3	650	LHDP	.99	.85	.75	.69
24782	MAN74★	10	37161	.300"	Red	CC	1.6V	20mA	0.3	650	RHDP	.99	.85	.75	.69
27545	NSN373	16	PC board mounted	.300"	Red	2-digit CC	1.7V	10mA	1.6	660	—	.59	.45	.25	.19
33961	TSB3881	16	PC board mounted	.300"	Red	4-digit CC	1.7V	10mA	1.6	660	—	8.95	6.95	6.49	5.95
17179	FND357	10	102200	.362"	Red	CC	1.7V	20mA	1.5	655	RHDP			Closeout	.49
81496	5082-7750	11	37161	.430"	Red	CA	1.6V	20mA	1.1	655	LHDP	1.29	1.09	.99	.89
17187	FND503★	10	102200	.500"	Red	CC	1.7V	20mA	0.6	665	RHDP	1.19	.99	.89	.79
17208	FND507★	10	102200	.500"	Red	CA	1.7V	20mA	1.2	665	RHDP	.99	.85	.69	.65
104213	LSD5124-10	10	101282	.560"	Red	CA	2.0V	20mA	1.8	660	RHDP	1.09	.95	.75	.69
24694	MAN6610	18	39335	.560"	Orange Red	2-digit CA	2.0V	20mA	4.0	635	RHDP	1.65	1.39	1.15	.99
24707	MAN6640	18	39335	.560"	Orange Red	2-digit CC	2.0V	20mA	4.0	635	RHDP	1.75	1.49	1.25	1.09
24715	MAN6710★	18	39335	.560"	Red	2-digit CA	2.2V	20mA	1.6	695	RHDP	1.65	1.39	1.15	.99
24723	MAN6740★	18	39335	.560"	Red	2-digit CC	2.2V	20mA	1.4	695	RHDP	1.65	1.39	1.15	.99
18737	HP3401★	13	39335	.800"	Orange Red	CA	1.6V	20mA	0.9	655	RHDP	1.49	1.29	.75	.59
117997	LTS3401AG	13	39335	.800"	Green	CA	2.1V	20mA	2.4	565	RHDP	1.49	1.29	.75	.59
18753	HP3405★	13	39335	.800"	Red	CC	1.6V	20mA	0.9	655	LHDP	1.49	1.29	.95	.89
97172	CSS1014H	10	102200	1.0"	Red	CA	2.2V	20mA	3.2	695	RHDP	1.75	1.49	1.25	1.09
97181	CSS1015H	10	102200	1.0"	Red	CC	2.1V	20mA	2.0	697	RHDP	1.75	1.49	1.25	1.09
97199	CSS2314D	10	102200	2.24"	Red	CA	7.0V	20mA	60.0	660	RHDP	6.95	5.95	4.95	4.49
97201	CSS2315D	10	102200	2.24"	Red	CC	7.0V	20mA	60.0	660	RHDP	6.95	5.95	4.95	4.49
105591	CSS4013E	10	PC board mounted	4.0"	Orange Red	CC	10V	20mA	20.0	635	RHDP	14.95	13.49	11.95	10.95

Dot Matrix Displays

Part Number	Product Number	Pins/ Leads	Compatible with Jameco Socket	Character Height	Illuminated Color	Buss Polarity*	Vf (Max.)	If (Max.)	mcd @ If	Wavelength nm	Decimal Point	Pricing 1-9	Pricing 10-99	Pricing 100-249	OEM Pricing 250-499
32951	TIL311	11	37161	.300"	Red	4x7 Hex character	5.0V	5mA	0.1	660	—	$10.95	$9.95	$8.95	$7.95
118906	LTP747R	12	37161	.700"	Red	5 x 7 AC/CR	1.7V	20mA	2.0	655	—	1.49	1.29	.95	.89
136506	LTP2157AHR	14	101282	1.8"	Ul. Red	5 x 7 CC/AR	1.7V	20mA	12.0	660	—	1.49	1.29	.95	.89
100028	LTP2158DHR	14	101282	2.3"	Red	5 x 8 AC/CR	1.8V	20mA	4.0	660	—	1.75	1.49	1.09	.99
135212	CSM-88221E	16	101282	2.3"	Orange Red	8 x 8 CC/AR	2.1V	20mA	4.0	635	—	2.49	2.25	1.75	1.49

Alpha-Numeric Displays

Part Number	Product Number	Pins/ Leads	Compatible with Jameco Socket	Character Height	Illuminated Color	Buss Polarity*	Vf (Max.)	If (Max.)	mcd @ If	Wavelength nm	Decimal Point	Pricing 1-9	Pricing 10-99	Pricing 100-249	OEM Pricing 250-499
33988	TSM2416	18	39335/101282	.160"	Red	4-digit 17-segment	5.0V	65mA	1.0	655	—			Closeout	$12.95
136514	LTP537G	18	39335/101282	.500"	Green	CA	1.7V	10mA	2.0	565	RHDP			Closeout	.49
140898	LSD5555-10	18	39335	.500"	Red	CC	2.4V	20mA	3.4	660	RHDP	1.95	1.75	1.49	1.25
140901	LSD5565-10	18	39335	.500"	Red	CC	2.4V	20mA	3.4	660	RHDP	1.95	1.75	1.49	1.25
105401	DL2614	13	39335	.540"	Red	2-digit CC	1.7V	20mA	1.0	655	RHDP			Closeout	.49
104117	LT3784E	18	39335	.540"	Orange	2-digit CC	2.1V	20mA	2.6	635	RHDP			Closeout	.99
108441	C5412-11	18	39335	.540"	Red	2-digit CC	2.1V	20mA	2.6	660	RHDP			Closeout	.49

*CA-Common Anode / CC-Common Cathode • LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point • AC/CR-Anode Column/Cathode Row

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Epson Real Time Clock Modules
• Frequency stability: ±50ppm
29591 Specifications:
• Built-in 32.768kHz quartz crystal
• Addressable counter start, stop, and reset function
• 12 to 24-hour format • Automatic leap year setting
• Microprocessor compatible 4-bit data bus

95530 Specifications:
• The built-in quartz crystal makes board design easy
• Direct bus-compatibility (120 nsec access time)
• Interrupt masking
• 30 seconds error adjustment function
• 18-pin dual in-line plastic package

Part No.	Product No.	Description	1-9	10-24
29591	RTC58321B	16-pin clock mod.	$7.49	$6.75
95530	RTC72421B	18-pin clock mod.	6.95	6.25

0.5" 3½ & 4-Digit Field Effect LCD Displays
• Reflective LCD gives a dark display on a light background
• 40-pin package (no connector required)   32230
• Compatible with socket P/N 101282 (2) (pg 46)   32230   ÷1.8:8.8
• Size: 2.0"L x 1.2"H x 0.1"D
• Pin spacing: 0.1" centers
32230: • Digital voltmeters, thermometers, pressure gauges, timers and clocks   17110   8.8:8.8
• Can be used with Intersil's 7106CPL (P/N 43748, pg 9)
17110: • Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format) and frequency counters

Part No.	Description	1-9	10-24
32230	3½-digit field effect LCD w/ pins	$8.95	$6.95
17110	4-digit field effect LCD w/ pins	9.95	7.95

10-Segment Bar Graph Displays
With On-Board Driver IC
• Bar or dot display mode externally selectable by user
• Packages are end-stackable for extended displays • Analog input 1.2 to 12V   33996
• Size: 2.0"L x 0.9"H x 0.2"D (.160"L x .063"H per bar)
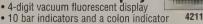
Part No.	Product No.	Description	1-9	10-49	50-99
33996	TSM3914	Linear function	$7.95	$6.95	$5.95
34016	TSM3916	VU-meter function	9.95	8.95	7.95

Futaba 0.5" Blue Green Fluorescent Display
• 4-digit vacuum fluorescent display
• 10 bar indicators and a colon indicator   42112
• Size: 3.9"L x 1.6"H x 0.8"W (leads: .75" long)

Part No.	Description	Price
42112	4-digit display w/ colon	Closeout $.99
25929	4/6-digit alarm w/ snooze clock chip	Closeout 5.95

4x40 and 2x16 Serial Backpack LCD Display Modules

The backpack is a daughterboard that receives data serially and displays it on the LCD module.
- Instruction codes for character generation, cursor control, scrolling, printing etc. (examples for stamps in PBASIC included)
- One-year warranty

Ideal for use with BASIC Stamps, 80C52-BASIC controllers and PCs! FTP

133129:
- 2x16 high-contrast supertwist display
- Power requirement: 4.8 to 5.5VDC @ 3mA
- Serial input: RS232, or inverted CMOS, TTL at 2400 or 9600 bps (jumper configurable)
- Size: 3.1"L x 1.4"W • Weight 0.1 lbs.

136485:
- 4x40 high-contrast supertwist display with unique "big number" mode – prints 1" numerals automatically
- Power requirement: 5VDC @ <10mA
- Serial input at 1200, 2400, 4800 or 9600 bps (DIP switch)
- Size: 7.5"L x 2.2"W • Weight 0.2 lbs.

Part No.	Description	1-4	5-9
133129	2x16 serial LCD display	$59.95	$53.95
136485	4x40 serial LCD display	169.95	152.95

URT Backlit LCD Parallel Displays
- 9600/2400 bps
- Character size: 0.11"W x 0.19"H
- Power requirement: (typical) 5V @ 2mA
- Weight: 0.1 lbs.
- One-year warranty

OPTIC NORTH AMERICA THE FUTURE OF LIGHT

144143: 24 x 2 character display
- Module size: 4.6"L x 1.4"W x 0.06"T
- Display size: 3.7"W x 0.7"H

144151: 16 x 2 character display
- Module size: 3.4"L x 1.2"W x 0.06"T
- Display size: 2.4"W x 0.6"H

Part No.	Description	1-4	5-9
144143	24 x 2 parallel LCD display	SALE	$44.95
144151	16 x 2 parallel LCD display	39.95	35.95

0.6" 3½ LCD Digital Panel Meters
- Single 9VDC operation
- Maximum input: 199.9mVDC
- Maximum display: 1999 counts
- Automatic polarity indication
- Input impedance: >100MΩ
- Accuracy: ±0.5% • Supply voltage: 9-12VDC
- Size: 2.7"L x 1.7"W • Weight: 0.1 lbs.

Part No.	Product No.	Description	1-4	5-9
108388	DPM188★	3.5 LCD DPM	$14.95	$11.95
146835	DPM188BL	3.5 LCD (Backlit)	17.95	15.95

Aluminum Enclosure for Digital Panel Meter
- Compatible with P/N 108388 digital panel meters (above)
- Display window size: 1.8"W x 0.8"H
- Includes connecting strips and screws
- Case size: 6.0"W x 2.8"D x 2.8"H • Weight: 0.4 lbs.
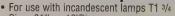
Part No.	Product No.	Description	1-9	10-24
138974	MPB19	DPM enclosure	$9.95	$8.95

JKL Colored Sleeves for Incandescent Lamps
- For use with incandescent lamps T1 3/4
- Size: .31"L x .19"Dia.

Part No.	Product No.	Color	1-9	10-99	100-999	1000+
146288	39085A	Blue	SALE	$.25	$.15	$.12
146270	39081A	Red	SALE	.25	.15	.12

JKL Glass Wedge Base Lamps
- Voltage: 6.3VDC
- **145333:** Use w/ push-in socket (P/N 145568 – below) NEW
- Lumens: 5.03
- Average life hrs: 20,000 — **145541**
- **145541:** Use w/ push-in socket (P/N 145576 – below)
- Lumens: 5.03 • Average life hrs: 20,000
- **145550:** Use w/ push-in socket (P/N 145584 – below)
- Lumens: 8.17 • Average life hrs: 20,000

Part No.	Size	Current (mA)	1-9	10-99	100-999	1000+
145333	T1 1/2	200	$.49	$.39	$.35	$.29
145541	T1 3/4	400	.49	.39	.35	.29
145550	T3 1/4	250	.49	.39	.35	.29

JKL Push-In Sockets NEW
145576

Part No.	Description	1-9	10-99	100-999	1000+
145568	T1 1/2 push-in socket	$.75	$.65	$.55	$.49
145576	T1 3/4 push-in socket	1.15	.95	.79	.69
145584	T3 1/4 push-in socket	1.15	.95	.79	.69

JKL Fluores. Lamp Power Supplies
This DC inverter is designed especially for cold cathode fluorescent lamps.

142252:
- Input voltage: 12VDC
- PCB size: 1.8"L x 0.8"W x .04"Thick • Weight: .03 lbs.

146190:
- Input voltage: 5VDC
- PCB size: 1.7"L x 0.8"W x .04"Thick • Weight: .02 lbs.

Part No.	Product No.	1-9	10-24	25-49
142252	FPWR1	$19.95	$17.95	$15.95
146190	BXA501	17.95	15.95	13.95

JKL Single Lead Tipless Type Fluorescent & Ultra Violet Lamps

World's smallest fluorescent and ultra violet lamps. These energy efficient miniature lighting innovations assure you of bright, uniform output, long life, cool operation and unmatched reliability, with the convenience of off-the-shelf availability.

142244/142965: compatible with P/N 142252 (above right)
146165/146157/146181/146173: compatible with P/N 146190 (above right)
146202: requires 15KΩ series resistor, runs off line voltage

Fluorescent Lamps * Circuit voltage

Part Number	Starting Volt. (Vrms)	Lamp Volt. (Vrms)	Intensity (nt)	Lamp Current (mA)	Size (in.) L x Dia.	Weight (lbs.)	1-9	10-24	25-49
142244	390	170	3500	5 (12 max.)	2.0 x .25	0.01	$12.95	$11.49	$9.95
146165	1200	520	28000	5.0	10.0 x .12	0.10	17.95	15.95	14.49
146157	850	345	2400	5.0	6.3 x .12	0.07	14.95	13.49	11.95
146202	75 (max.)	115*	—	3.0	0.9 x .23	0.01	1.95	1.75	1.59

Ultra Violet Lamps

Part Number	Starting Volt. (Vrms)	Lamp Volt. (Vrms)	Total Output Flux	Lamp Current (mA)	Size (in.) L x Dia.	Weight (lbs.)	1-9	10-24	25-49
142965	900	195	.25mW/cm² @ 1"	2.5	2.0 x .12	0.01	$12.95	$11.49	$9.95
146181	750-950	500	.25µW/cm² @ 1"	5.0	4.7 x .12	0.05	11.95	10.95	9.95
146173	700-900	140	.25µW/cm² @ 1"	2.5	1.0 x .12	0.03	9.95	8.95	7.95

Incandescent Lamps FTP

141031   141006   141065   134720   Fig. 1   Fig. 2   Fig. 3   Fig. 4

Part No.	Product No.	Fig.	Size	Description	Dia.(Ins./mm) A	B	C	D	E	Vf @ If (mA)	1-9	10-99	100-999	OEM 1000
141057	6833	1	T 3/4	Incandescent lamp 1" lead wire	.08/2.2	1	1.2	0.2	—	5V @ 60mA	$.59	$.49	$.39	$.35
134738	H800	4	T1	Mini incandescent lamp	.14/3.5	10	—	0.4	—	5V @ 70mA	2/pk			.10
134720	H801	4	T1	Mini incandescent lamp	.13/3.2	7	—	0.5	—	3V @ 70mA	3/pk			.10
134746	H802	4	T1	Mini incandescent lamp	.13/3.4	4.5	—	0.5	—	10V @ 70mA	4/pk			.10
141065	2200	1	T1 3/4	Incandescent lamp 1" lead wire	.19/4.9	1	1.5	0.5	—	5V @ 60mA	.39	.35	.29	.25
141073	2182	1	T1 3/4	Incandescent lamp 1" lead wire	.19/4.8	1	1.5	0.5	—	14V @ 80mA	.29	.25	.22	.19
141081	2187	1	T1 3/4	Incandescent lamp 1" lead wire	.19/4.8	1	1.5	0.5	—	28V @ 40mA	.35	.29	.25	.22
141006	7361	2	T1 3/4	Incandescent lamp bi-pin base	.18/4.7	0.3	0.8	0.3	0.3	5V @ 60mA	.69	.59	.49	.39
141014	7382	2	T1 3/4	Incandescent lamp bi-pin base	.19/4.7	0.3	0.9	0.3	0.3	5V @ 60mA	.69	.59	.49	.39
141022	7387	2	T1 3/4	Incandescent lamp bi-pin base	.19/4.8	0.3	0.8	0.3	0.3	28V @ 40mA	.59	.49	.39	.35
141031	330	3	T1 3/4	Incandescent lamp flanged	.22/5.6	—	0.6	0.3	0.2	14V @ 80mA	.49	.39	.35	.29
141049	387	3	T1 3/4	Incandescent lamp flanged	.21/5.4	—	0.6	0.3	0.2	28V @ 40mA	.49	.39	.35	.29
27351	NE2	4	—	Neon lamp (w/ 150kΩ res. in series)	.197/5	1.2	—	0.38	—	65-120VDC @ 130-470mA/ 65-120VAC @ 150-500mA	.19	.15	.09	.07

Conxrite® LED Connectors
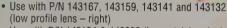
T1 LED Connectors

- Use with P/N 143212, 143204, 143191 and 143183 (low profile lens – right)
- Use with P/N 143175 & 143221 (lens retaining ring)

Part No.	Product No.	Cable Lgth (in.)	1-9	10-99	100	500
143079	BE2104	4.5	$1.69	$1.59	$1.49	$1.39
143087	BE2108	8.5	1.69	1.59	1.49	1.39
143095	BE2112	12	1.69	1.59	1.49	1.39
143108	BE2118	18	1.95	1.79	1.69	1.59
143116	BE2124	24	2.49	2.29	1.95	1.79

T1³/₄ LED Connectors FTP

- Use with P/N 143167, 143159, 143141 and 143132 (low profile lens – right)
- Use with P/N 143124 & 143239 (lens retaining ring)

Part No.	Product No.	Cable Lgth (in.)	1-9	10-99	100	500
143028	CE2104	4.5	$1.69	$1.59	$1.49	$1.39
143036	CE2108	8.5	1.69	1.59	1.49	1.39
143044	CE2112	12	1.69	1.59	1.49	1.39
143052	CE2118	18	1.95	1.79	1.69	1.59
143061	CE2124	24	2.49	2.29	1.95	1.79

Design Engineer's 139 Piece LED Hardware Assortment

LED panel lenses and circuit mounts

Allows you to mount LEDs for different applications and designs. Comes with colored round and square lenses. Includes PCB lens mounts for horizontal or vertical mounting. Eliminates soldering, shrink tubing and terminal crimping.

- 139 piece hardware kit
- Red, yellow, green, blue and clear lenses
- Mounts and pre-wired solderless LED indicators
- LED PCB mounts, sockets and standoffs
- Clear plastic kit with dividers
- Size: 8.5"L x 4.5"W x 1.5"H • Weight: 0.4 lbs.

Part No.	Description	1-4	5-9
140759	Engineer's LED hardware kit	$22.95	$19.95

Optoelectronics Book (1997)

Prompt Publications: If you, or someone you know, has an interest in optoelectronics, this informative book is for you. Written and designed as a self-teaching text, it covers the basic concepts of optoelectronics, photometrics, and optics.

- 264 pages • Size: 10.9"L x 8.3"W • Weight: 1.5 lbs.

Part No.	Description	1-4	5-9
139547	Optoelectronics Book	$29.95	$26.95

Cliplite® LED Mounting Hardware

- Material: lens – polycarbonate; spacer – nylon
- Increases apparent brightness up to 125% and viewing angle up to 180° with either diffused or nondiffused LEDs
- Helps guard components from electrostatic discharge up to 16kV while affording the LED physical protection
- .375" centers spacing • Weight: .001 lbs.

Figure 1 (5mm)
Figure 2 (5mm)
29612

Part No.	Product No.	Description	Color	Figure	Mounting Hole (in.)	Panel Thickness	1-9	10-99	100	OEM 500+
14277	CTP280★	T1³/₄	clear	1	.25	.063" –.125"	$.29	$.25	$.22	$.19
109137	GTP280	T1³/₄	green	1	.25	.063" –.125"	.29	.25	.22	.19
29612	RTP280	T1³/₄	red	1	.25	.063" –.125"	.29	.25	.22	.19
124927	CLB300CTP	T1³/₄	clear	2	.25	.031" – .25"	.29	.25	.22	.19

Cliplite® T1 Lens

- Use with P/N 143079, 143087, 143095, 143108 and 143116 (LED T1 connectors – left)
- Use with P/N 143175 and 143221 (lens retaining ring)

Low Profile Lens with Fresnel Rings

SMC 170 (3mm)

Part No.	Product No.	Color	1-9	10-99	100	500
143212	SMC170GTP	Green	$.21	$.19	$.17	$.15
143204	SMC170YTP	Yellow	.21	.19	.17	.15
143191	SMC170RTP	Red	.21	.19	.17	.15
143183	SMC170CTP	Clear	.21	.19	.17	.15

.16"Dia. Lens Retaining Rings

Part No.	Product No.	Thickness	1-9	10-99	100	500
143175	RNG132	.08"	$.06	$.055	$.05	$.045
143221	RNG165	.15"	.06	.055	.05	.045

Cliplite® T1³/₄ Lens

- Use with P/N 143028, 143036, 143044, 143052 and 143061 (LED T1³/₄ connectors – left)
- Use with P/N 143124 and 143239 (lens retaining ring)

Low Profile Lens with Fresnel Rings

CMC 321 (5mm)

Part No.	Product No.	Color	1-9	10-99	100	500
143167	CMC321GTP	Green	$.22	$.20	$.18	$.16
143159	CMC321YTP	Yellow	.22	.20	.18	.16
143141	CMC321RTP	Red	.22	.20	.18	.16
143132	CMC321CTP	Clear	.22	.20	.18	.16

.29"Dia. Lens Retaining Rings

Part No.	Product No.	Thickness	1-9	10-99	100	500
143124	RNG234	.08"	$.06	$.055	$.05	$.045
143239	RNG268	.17"	.06	.055	.05	.045

P-C-Lite® Right Angle LED Mount

PCB mounting of Bi & Tri-lead LEDs — Form leads w/ the mount, snap leads into retaining tabs

PCB mounting of LEDs in arrays — Bi & tri-lead LEDs can be combined w/ dove-tail interlocking feature

- Use with 5mm LED
- Dimensions: .24"L x .24"W x .18"Dia.

Part No.	Product No.	1-9	10-99	100	500
143247	PCH175	$.10	$.09	$.08	$.07

P-C-Lite® Sockets for .197"Dia. LED

143255

- Use with 3mm or 5mm LED, .017"-.030" round or square leads
  - PCV220 – thru hole, vertical socket
  - PCH330 – thru hole, horizontal socket
- P/N 143255: .24"L x .24"W x .33"H
  P/N 143263: .31"L x .24"W x .24"H

Part No.	Product No.	1-9	10-99	100	500
143255	PCV220	$.59	$.55	$.49	$.45
143263	PCH330	.59	.55	.49	.45

Jameco LED Mounting Hardware

- P/N 95521: for use with rectangular LEDs with case size 0.244"L x 0.145"W x 0.270"H
- Weight: .001 lbs.

95513   23077   95521

Part No.	Product No.	Description	Color	Mounting Hole (in.)	Panel Thickness	1-9	10-99	100	OEM 1000+
95513	LMH100★	T1 snap-in	black	.185	up to .070"	$.15	$.12	$.09	$.07
23077	LMH200★	T1³/₄ ring & clip	black	.257	up to .125"	.15	.12	.09	.07
95521	LMH250	Rect. snap-in	black	.306 x .202	up to .092"	.15	.12	.09	.07

Jameco LED Indicators

- Easy panel installation
- Panel indicators
- Status indicators
- Instrument indicators
- Weight: .01 lbs.

Figure 1   Figure 2   Figure 3   Figure 4

Part No.	Product No.	Description	Color	Figure	Mounting Hole (in.)	Panel Vf @ If (mA)	1-9	10-99	100	OEM 250+
141090	L1211RD	Black rect.	red	1	.26 x .18	2V @ 20mA	$.99	$.89	$.75	$.59
141102	L1212RD	Round plastic	red	2	.24	2V @ 20mA	.99	.89	.79	.69
141111	L9225RD	Chrome bezel	red	3	.23	2V @ 20mA	.79	.69	.59	.49
141129	L913RD	Chrome bezel	red	4	.24	2V @ 20mA	.99	.89	.79	.69
141137	L917RD	Chrome bezel	red	4	.31	2V @ 20mA	.99	.89	.75	.59

Case figures: DO-5, DO-7, DO-27, DO-35, DO-41, TO-3, TO-3PJ, TO-3PL, TO-3PM, T-16, TO-39, TO-92, TO-92M, TO-126, TO-202, TO-218, TO-220, Z6, Z22, Z23, Z25, Z26

Diodes

Part No.	Product No.	Case Fig.	Description	1-9	10-99
144320	ECG177	DO-35	Si, general purpose, 200PRV, .16A	$1.09	$.99
144346	ECG587	DO-41	Si, ultra fast switch, 200PRV, 1A	1.15	1.05
144338	ECG588	DO-27	Si, ultra fast switch, 200PRV, 3A	1.75	1.59

Zener Diodes

Part No.	Product No.	Case Fig.	Description	1-9	10-99
144362	ECG5077A	DO-41	18V, 1W, 5%	$2.25	$1.99
144354	ECG5127A	DO-41	12V, 5W, 5%	2.19	1.95

Recitifiers

Part No.	Product No.	Case Fig.	Description	1-9	10-99
144303	ECG166	Z23	Si, bridge, 100 PRV 2A	$1.95	$1.75
144493	ECG506	Z6	Si, fast recovery, 1400PRV, 2A	1.75	1.59
144485	ECG525	DO-27	Si, fast recovery, 2000PRV	5.95	5.35
144477	ECG552	DO-41	Si, general purpose, 600PRV, 1A	1.49	1.35
144506	ECG558	DO-41	Si, general purpose, 1500PRV, 1A	2.49	2.25
144469	ECG580	DO-41	Si, general purpose, 600PRV, 3A	2.49	2.25
144442	ECG5304	Z22	Si, bridge, 400PRV, 1.5A	1.75	1.59
144451	ECG5324	Z25	Si, bridge, 400PRV, 25A	6.95	6.25
144418	ECG5342	Z25	Si, bridge, 600PRV, 40A	10.95	9.95
144434	ECG5344	Z25	Si, bridge, 1000PRV, 40A	12.95	11.49
144389	ECG5812	Z26	100PRV, 6A	2.49	2.25
144397	ECG5814	Z26	400PRV, 6A	2.75	2.49
144426	ECG5815	Z26	600PRV, 6A	3.95	3.59
144371	ECG5817	Z26	1000PRV, 6A	3.95	3.59
144400	ECG5994	DO-5	600PRV, 40A	8.95	7.95

SCRs

Part No.	Product No.	Case Fig.	Description	1-9	10-99
144514	ECG5424	TO-220	400Vrm, 4.7A, high speed	$6.49	$5.79
144522	ECG5427	TO-202	400Vrm, 4A, sensitive gate	2.25	1.99
144311	ECG6408	DO-7	DIAC, bilateral trigger diode,Vbo=32V	1.09	.99

Transistors

Part No.	Product No.	Case Fig.	Description	1-9	10-99
144776	ECG129	TO-39	PNP, audio output, drive, 80BV_{ceo}	$2.75	$2.49
144611	ECG152	TO-220	NPN, audio, general purpose amp 60BV_{ceo}	2.49	2.25
144725	ECG154	TO-39	NPN, high voltage video output, 300BV_{ceo}	3.35	2.99
144717	ECG157	TO-126	NPN, high voltage audio amp, 300BV_{ceo}	2.49	2.25
144637	ECG165	TO-3	NPN, color TV horizontal output, 1400BV_{ceo} (CES)	8.95	7.95
144565	ECG184	TO-126	NPN, audio power amp	2.25	1.99
144670	ECG194	TO-92	NPN, gen. purpose HV amp/switch	1.09	.99
144661	ECG2300	TO-218	NPN, fast switching, HV, 1500V, 8A	7.49	6.75
144733	ECG2312	TO-220	NPN, high volt., high speed switch	5.59	4.95
144653	ECG2315	TO-220	NPN, Si, fast switching, darlington, 400V, 8A	5.95	5.35
144696	ECG2318	TO-218	NPN, Si, high voltage switch	9.95	8.95
144590	ECG2328	TO-3PL	NPN, Si, audio power output	7.25	6.49
144581	ECG2329	TO-3PL	NPN, Si, audio power output	6.95	6.25
144629	ECG2331	TO-3PM	NPN, Si, color TV horiz deflection w/ internal damper diode	6.95	6.25
144557	ECG289A	TO-92	NPN, Si, audio power amp & switch	1.39	1.25
144531	ECG293	T-16	NPN, Si, audio amp & driver	1.75	1.59
144792	ECG32	TO-92M	PNP, Si, TV sound & vertical output	4.49	3.99
144573	ECG36	TO-3PJ	NPN, Si, audio power amp	5.95	5.35
144549	ECG373	TO-126	NPN, Si, audio amp & driver	2.75	2.49
144750	ECG377	TO-220	NPN, Si, power amp, driver, switch	4.75	4.25
144784	ECG378	TO-220	PNP, Si, power amp, driver, switch	3.35	2.99
144768	ECG379	TO-220	NPN, Si, power amp, hi volt. switch	7.49	6.75
144602	ECG382	TO-92M	NPN, Si, audio frequency driver	2.49	2.25
144688	ECG388	TO-3	NPN, Si, high power audio amp	9.95	8.95
144741	ECG396	TO-39	NPN, Si, power amp & hi speed switch	3.35	2.99
144709	ECG399	T-16	NPN, Si, high voltage amp, video	3.35	2.99
144645	ECG89	TO-3	NPN, Si, color TV horizontal output	11.49	9.95

Referee Cross Reference DOS Software NEW
ICs, Transistors, Diodes

Cross reference hundreds of thousands of devices from transistors, ICs, diodes and more. This cross reference software provides pin-outs, ECG® numbers, NTE® numbers and SK numbers for many parts.
- Seven 3.5" disks
- Software utilities include unit conversion, standard resistor value tables, resistor color generator with tolerance, and wire gauge tables
- Minimum system requirements: 386 compatible or better, 4MB RAM, 25MB hard disk space and DOS 5.0+ • Weight: 0.8 lbs.

Part No.	Description	Price
144979	Referee Cross-Reference	$109.95

Electronics Projects for the 21st Century NEW

Prompt Publications If you are an electronics hobbyist with interest in science and technology, this book is a welcome addition in your library. Filled with nearly 2 dozen projects such as Gieger counter, laser power supply for Holography, Pinhole camera and more are listed. The book includes a brief history of the project you are about to create, parts list, and schematic diagram. (256 pages)
- Size: 9.3" x 7.5" • Weight: 1.0 lb.

Part No.	Description	1-4	5-9
145461	Elec. Proj. for the 21th Cen.	$19.95	$17.95

Infrared Remote Control Receiver Modules
- Used in TVs, VCRs, audio equip., car stereos and home computers
- Single unit module which incorporates a PIN diode and a receiving preamplifier IC
- 5VDC @ 2mA • 940nm wavelength
- Excellent mechanical strength and electrical stability
- Size: 0.6"L x 0.6"W x 0.5"H • Weight: 0.1 lbs.
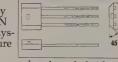
106382

Part No.	Description	1-9	10-99	100+
106382	32.7kHz infrared remote receiver, side view	$3.39	$2.79	$2.29
131908	38.0kHz infrared remote receiver, side view	3.25	2.25	1.95
139889	37.9kHz infrared remote receiver, top view	3.25	2.25	1.95

ITT Unipolar Hall Effect Sensor

On-chip temperature compensation circuitry minimizes shifts in ON and OFF points and hysteresis over temperature and supply voltage.
Output turns magnetic south to branded side of package, output turns high if magnetic field is removed. TO-92UA style package.

Frequency	Supply Voltage	Cont. Output Current	On/Off (max/min) point B mT
DC-15KHz	3.8–24V	30mA	21.9 / 14

Part No.	Product No.	1-9	10-99	100-999	1000+
145761	HAL508UAC	$.79	$.69	$.59	$.49

ECG® Master Replacement Guide and Software (1996) NEW

The *Guide* features approx. 294,000 crosses and over 390 new devices. New *Instant Cross* software gives ECG® replacement, description, case style, and special notes. Over 4,000 ECG® products. • Wt. (*Guide*): 2.5 lbs.

Part No.	Description	Price
146819	ECG Master Replacement Guide	$9.95
146801	ECG Instant Cross software (Win®)	9.95

Front Flip Down Plastic Case
- Drawers open and close simultaneously
- Drawers can be subdivided into 24 compartments or upon your needs
- Wall mountable
- Case color: black; drawer color: red
- Size: 13.5"L x 3.8"W x 14.3"H • Weight: 2.8 lbs.

Part No.	Description	1-9	10-99	100+
142990	Front flip down case	$19.95	$17.95	$15.95

Hitachi Proximity Sensor

Sensor proximity of ferrous and non-ferrous metals.
Hitachi #90720
- Input: +5VDC
- Output: 0.4VDC level change • 3 leads
- Size: 3.5"L x 0.6"W x 0.5"H • Cord length: 22"

Part No.	Description	1-9	10-99	100+
117487	Proximity sensor	$1.95	$1.49	$.99

We carry major manufacturers – call for pricing on quantities over 5000.

4, 14-pin DIP Case   TO-3 Case   TO-18 Case   TO-39 Case   TO-72 Case   TO-92 Case   TO-126 Case   TO-220/TO-220AB Case   TO-237 Case   SOT-23 (SMT) Case

Part Number	Product Number	Case	Description	V_{ceo}	Min. hfe @ I_c	Typ. or Max F_t (MHz)	NTE/ECG NO.	Pricing 1-9	10-99	100-999	OEM Pricing 1000+
120221	BPW77	TO-18	NPN photo transistor w/ lens	70	N/A	0.11	—	$1.09	$.89	$.79	$.69
26462	MPSA06	TO-92	NPN medium power	30	50 @ 10mA	125	287	.16	.12	.07	.06
26489	MPSA13	TO-92	NPN power darlington	30	5K @ 10mA	125	46	.19	.15	.11	.08
33021	TIP29A	TO-220	NPN power transistor	60	15 @ 1A	0.5	291	.49	.39	.35	.32
33030	TIP30A	TO-220	PNP power transistor	60	15 @ 1A	0.5	292	.49	.39	.35	.32
139598	TIP30C	TO-220AB	PNP power transistor	100	40 @ 200mA	3	292	.59	.49	.45	.39
33048	TIP31A★	TO-220	NPN power transistor	60	10 @ 3A	0.5	291	.49	.39	.35	.32
33064	TIP32A★	TO-220	PNP power transistor	60	10 @ 3A	0.5	292	.49	.39	.35	.32
33081	TIP41A★	TO-220	NPN power transistor	60	15 @ 3A	1	331	.59	.49	.45	.39
33101	TIP42A★	TO-220	PNP power transistor	60	15 @ 3A	1	332	.59	.49	.45	.39
139580	TIP42C	TO-220AB	PNP power transistor	100	30 @ 300mA	3	332	.79	.69	.59	.55
32977	TIP102★	TO-220	NPN power darlington	100	1K @ 3A	—	2343	.75	.59	.45	.39
32985	TIP106	TO-220	PNP power darlington	80	1K @ 3A	—	2344	.75	.59	.49	.45
32993	TIP120★	TO-220	NPN power darlington	60	1K @ 3A	—	261	.75	.59	.49	.45
120416	TIP122	TO-220	NPN power darlington	100	1K @ 3A	—	261	.75	.59	.49	.45
33013	TIP125★	TO-220	PNP power darlington	60	1K @ 3A	—	262	.59	.49	.45	.39
38228	2N2219A	TO-39	NPN general purpose	40	100 @ 150mA	300	128	.49	.39	.35	.32
28628	PN2222★	TO-92	NPN general purpose	30	100 @ 150mA	250	123AP	.16	.12	.09	.07
38236	2N2222A★	TO-18	NPN general purpose	40	100 @ 150mA	250	123A	.35	.29	.25	.22
26446	MPQ2222	14-pin DIP	NPN gen. purp. small signal/quad	40	100 @ 150mA	200	2321	.85	.69	.59	.55
28644	PN2907★	TO-92	PNP general purpose	40	100 @ 150mA	200	159	.13	.10	.08	.06
38279	2N2907A★	TO-18	PNP general purpose	60	100 @ 150mA	200	129P	.35	.29	.25	.22
26454	MPQ2907	14-pin DIP	PNP gen. purp. small signal/quad	40	100 @ 150mA	200	2322	.75	.59	.45	.39
25831	MJE2955T★	TO-220	PNP power transistor	60	20 @ 4A	2	332	.75	.59	.49	.45
38295	2N3053	TO-39	NPN general purpose	40	25 @ 150mA	100	129	.75	.59	.49	.45
25857	MJE3055T★	TO-220	NPN power transistor	60	20 @ 4A	2	331	.75	.59	.49	.45
38308	2N3055★	TO-3	NPN power bipolar, epitaxial base	60	15 @ 10A	0.01	130	.85	.69	.59	.55
38324	2N3772★	TO-3	NPN power bipolar, epitaxial base	40	15 @ 4A	0.05	181	1.65	1.45	1.15	1.05
140151	2N3773	TO-3	NPN power audio	140	15 @ 8A	—	284	1.95	1.75	1.55	1.39
38359	2N3904★	TO-92	NPN general purpose	40	100 @ 10mA	300	123AP	.12	.09	.06	.05
38375	2N3906★	TO-92	PNP general purpose	40	100 @ 10mA	250	159	.12	.09	.07	.06
38421	2N4401★	TO-92	NPN general purpose	40	100 @ 150mA	250	123AP	.16	.12	.07	.06
38447	2N4403★	TO-92	PNP general purpose	40	100 @ 150mA	200	159	.16	.12	.07	.06
140134	2N6725	TO-126	NPN darlington	50	25000 @ 200mA	100	—	.59	.49	.45	.39
38480	PN5179	TO-92	NPN high frequency transistor	15	25 @ 3mA	2000	229	.35	.29	.25	.22
140433	2N5771	TO-92	PNP high speed general purpose	15	50 @ 10mA	700	5688	1.65	1.45	.99	.89
140361	2N6727	TO-237	PNP power transistor	40	55 @ 10mA	50	129P			Closeout	.39
140409	2N6039	TO-126	NPN power darlington transistor	80	750 @ 2A	—	253			Closeout	.49
140396	2N6388	TO-220AB	NPN power darlington transistor	80	1000 @ 5A	—	263	.89	.79	.69	.59
140388	2N5109	TO-39	NPN RF broad band transistor	20	40 @ 50mA	1200	278	1.65	1.45	1.25	1.09
140353	2N6488	TO-220AB	NPN power audio transistor	80	20 @ 5A	5	332			Closeout	.59
140373	2N5179	TO-72	NPN low noise UHF transistor	12	25 @ 3mA	900	316	.79	.69	.59	.55

Surface Mount Transistors (SMT) 10 pc. min.

Part Number	Product Number	Case	Description	V_{ceo}	Min. hfe @ I_c	Typ. or Max F_t (MHz)	NTE/ECG NO.	Pricing 1-9	10-99	100-999	OEM Pricing 1000+
94941	PN2222SM	SOT-23	NPN general purpose	30	100 @ 150mA	250	—	—	$.16	$.12	$.09
94959	PN2907SM	SOT-23	PNP general purpose	40	100 @ 150mA	200	—	—	.19	.13	.11
94967	2N3904SM	SOT-23	NPN general purpose	40	100 @ 10mA	300	—	—	.19	.13	.11
94975	2N3906SM	SOT-23	PNP general purpose	40	100 @ 10mA	250	—	—	.16	.10	.09

J-FET Transistors

Part Number	Product Number	Case	Description	BV_{GS} (V)min @ IGuA	I_{DSS} (max) (mA) @ V_{DS}	VP (max) @ V_{DS}	NTE/ECG No.	Pricing 1-9	10-99	100-999	OEM Pricing 1000+
26403	MPF102★	TO-92	JFET (N Channel) RF, VHF, UHF, amp	25 @ 1	20 @ 15	4 @ .5	451	$.39	$.35	$.29	$.25
38341	2N3823	TO-72	JFET (N Channel) VHF, amp	30 @ 1	20 @ 15	8 @ .5	452	.89	.79	.69	.59
38527	2N5951	TO-92	JFET (N Channel) RF, VHF, UHF, amp	30 @ 1	13 @ 15	5 @ 100	—	1.09	.89	.79	.69
140142	J176	TO-92	JFET (P Channel)	30 @ 1	2 @ 25	4 @ -15	—	.59	.49	.45	.39
119423	2N7000★	TO-92	FET TMOS (N Channel)	—	1 @ 48	—	—	.49	.39	.29	.19
139344	IRFD220	4-pin DIP	FET TMOS (N Channel)	200 @ 25mA	800 @ 200	—	—			Closeout	.69
140169	2N7002	SOT-23	FET TMOS (N Channel)	—	0.5 @ 60	—	—	.35	.29	.25	.22
140450	J112	TO-92	JFET (N Channel)	35 @ 1	5 @ 5	5 @ 5	468	.75	.59	.45	.39
140441	J211	TO-92	JFET (N Channel)	25 @ 1	20 @ 15	4.5 @ 15	—			Closeout	.39

⊞III Bug Boxes

- Anti-static plastic
- Fits in bug cage (11332)
- (11341) stores sixty
  8-pin or thirty 16-pin DIPs
- (11375) designed to store components
- Color: blue • Weight: 0.11 lbs.
- Box size: 4.9"L x 3.3"W x 0.6"H

Part No.	Description	1-9	10-49	50-99
11341	Fixed: 30 individual comp...	$3.95	$3.49	$2.49
11375	Adjustable: 3 comp./6 vertical and 6 horizontal dividers........	4.49	3.95	2.95

⊞III Bug Trays

- Fits in bug cage (11332)
- (11826) Open:
  1 compartment
  4.6"L x 3.2"W x 0.4"H
- (11800) Horizontal: 10 compartments
  3.2"L x 0.4"W x 0.4"H ea.
- Tray size: 4.8"L x 3.6"W x 0.5"H • Weight: 0.08 lbs.

Part No.	Description	1-9	10-49	50-99
11826	Open bug tray	$2.95	$2.49	$1.95
11800	Horizontal bug tray	2.95	2.49	2.25

⊞III Bug Cage

- Hold bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Cage size: 5.0"L x 3.9"W x 5.1"H   *Bug boxes not included*

Part No.	Description	1-9	10-24	25-49
11332	Bug cage	$6.95	$6.25	$5.49

JAMECO Stackable Drawers

- Case size:
  4.5"L x 4.4"W x 2.3"H
  Each drawer:
  4.4"L x 4.0"W x 0.9"H
- Weight: 0.5 lbs.

Part No.	Description	1-9	10-49	50+
11906	White case/blue drawers..	$2.95	$2.49	$2.25

JAMECO Plastic Fliptop Box

Includes removable spacers that can be used to divide the box into 18 or less compartments.

- Color/Materials: clear plastic box with a clear plastic lid
- Size: 8.4"L x 4.5"W x 1.4"H
- Weight: 0.3 lbs.

Part No.	Description	1-9	10-99	100+
100255	Fliptop box	$1.95	$1.75	$1.49
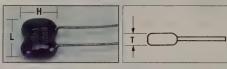
3M Adhesive Rubber Feet

- Pressure sensitive adhesive-backed polyurethane for feet, stops, spacers, and protectors in many applications

Part No.	Product No.	Type	Fig.	Pack	Dimension (W" x H")	Pricing 1-9	Pricing 10-99
142738	SJ5003BLK4	Blk hemisphere	1	4	.44 x .20	.99	.75
142746	SJ5003BLKC	Blk hemisphere	1	100	.44 x .20	5.95	4.95
142762	SJ5008BLK4	Blk tapered square	3	4	.50 x .12	.99	.75
142771	SJ5008BLKC	Blk tapered square	3	100	.50 x .12	5.95	4.95
119618	SJ5012BLK4	Blk cylindrical	2	4	.50 x .14	1.25	.99
142658	SJ5012BLKC	Blk cylindrical	2	100	.50 x .14	5.95	4.95
142674	SJ5018BLK4	Blk tapered square	4	4	.50 x .23	1.29	.99
142682	SJ5018BLKC	Blk tapered square	4	100	.50 x .23	8.95	7.95
126981	SJ5023BLK4	Blk tapered square	5	4	.75 x .25	1.95	1.75
142666	SJ5023BLKC	Blk tapered square	5	100	.81 x .30	14.95	12.95
142797	SJ5302CLR4	Clear hemisphere	1	4	.31 x .09	1.19	.89
142800	SJ5302CLRC	Clear hemisphere	1	100	.31 x .09	6.95	5.95
142703	SJ5312CLR4	Clear cylindrical	2	4	.50 x .14	1.19	.89
142711	SJ5312CLRC	Clear cylindrical	2	100	.50 x .14	6.95	5.95
119597	50051100	Blk flat round (ITW)	—	50	.50 x .06	3.49	2.95

Dipped Silver Mica Capacitors (±5%)

Metalized Polyester Film Capacitors

Case type	DM15
Lead space (in.)	.23
Tolerance	± 5%
Operating temperature range	-55°C to +125°C
Size (mm) – L x T x H (may vary)	11 x 4 x 9

Part Number	Product Number	Capacitance	Voltage	Pricing 1	Pricing 10	Pricing 100	OEM 1000
15991	DM100	10pf	500V	$.45	$.35	$.29	$.25
16037	DM220	22pf	500V	.45	.35	.22	.19
16070	DM330	33pf	500V	.45	.35	.25	.19
16096	DM470	47pf	500V	.45	.35	.19	.15
16002	DM101	100pf	500V	.45	.35	.29	.25
16088	DM331	330pf	500V	.65	.55	.29	.22
16109	DM471	470pf	500V	.75	.65	.55	.45
16117	DM681	680pf	300V	.79	.69	.29	.25
16011	DM102	1000pf	100V	.85	.75	.65	.55

JAMECO 20 Drawer Component Cabinet

81701

Divider (shown with drawer)

- Includes 20 clear plastic drawers and dividers and 30 adhesive I.D. labels
- Drawer can be divided into 4 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H • Wt.: 4.7 lbs.
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H
- Divider weight: 0.01 lbs.

VALUE

Part No.	Description	1-9	10-24
81701	Complete component cabinet	$14.95	$13.49
85446	Divider for drawer	.39	.29

nlc® Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)

Any surface mount Tantalum Chip Capacitor may be special ordered – 2000 piece minimum.

Case Size (Dimensions in mm)

EIA CASE CODE	L ±0.2	W ±0.2	H ±0.2	P ±0.3	a ±0.2	h(min)
A (3216)	3.2	1.6	1.7	0.8	1.2	0.7
B (3528)	3.5	2.8	1.9	0.8	2.0	0.7
C (6032)	6.0	3.2	2.5	1.3	2.0	1.0
D (7343)	7.3	4.3	2.9	1.3	2.4	1.0

10V SMT Tantalum

Part Number	Capacitance	Case Size	10 pc. minimum	Pricing 100	Pricing 500	OEM reels 500	OEM reels 2000
87020	10µf	B	$.39	$.35	$.25	—	$.19
87118	100µf	D	.75	.59	—	.45	—

16V SMT Tantalum

Part Number	Capacitance	Case Size	10 pc. minimum	Pricing 100	Pricing 500	OEM reels 500	OEM reels 2000
86932	1µf	A	$.35	$.25	$.19	—	$.15
86959	2.2µf	A	.35	.25	.19	—	.15
86991	4.7µf	B	.39	.29	.25	—	—
87038	10µf	C	.49	.35	—	.29	—
87071	22µf	C	.59	.45	—	.35	—
87100	47µf	D	.75	.59	—	.39	—

35V SMT Tantalum

Part Number	Capacitance	Case Size	10 pc. minimum	Pricing 100	OEM reels 500
87046	10µf	D	$.89	$.69	$.49

nlc® Multilayer Ceramic Chip Capacitors (Surface Mount)

Any surface mount Ceramic Chip Capacitor may be special ordered – 3000 piece minimum.

0805 SMT CASE

1206 SMT CASE

X7R SERIES (±10%)

0805 SMT Case

Part Number	Capacitance	Voltage	100 pc. minimum	Pricing 500	Pricing 1000	OEM reels 3000	OEM reels 5000
87311	.01µf	50	$.15	$.11	$.06	—	$.04
87370	.1µf	25	.25	.19	.15	.11	—

1206 SMT Case

Part Number	Capacitance	Voltage	100 pc. minimum	Pricing 500	Pricing 1000	OEM reels 3000	OEM reels 5000
87249	1000pf	50	$.10	$.07	$.04	—	$.03
87329	.01µf	50	.15	.11	.06	—	.04
87388	.1µf	50	.17	.14	.10	.07	—
87396	.22µf	25	.25	.19	.13	.11	—

Z5U SERIES (±20%)

0805 SMT Case

Part Number	Capacitance	Voltage	100 pc. minimum	Pricing 500	Pricing 1000	OEM reels 3000	OEM reels 5000
87177	.1µf	50	$.15	$.11	$.06	—	$.04

1206 SMT Case

Part Number	Capacitance	Voltage	100 pc. minimum	Pricing 500	Pricing 1000	OEM reels 3000	OEM reels 5000
87185	.1µf	50	$.14	$.11	$.07	—	$.045
87206	.22µf	50	.14	.11	.07	—	.045
87214	.33µf	50	.15	.12	.08	.06	—
87222	.47µf	50	.25	.19	.15	—	.12

See page 36 for Memory Capacitors

Dipped Tantalum Capacitors (±10%)
Resin Dipped Solid Tantalum Capacitors

- Flame retardant coating
- Low leakage current impedance
- Designed for entertainment and commercial equipment
- Exceptional temperature stability
- Moisture-resistant

Operating temperature range	-55°C to +85°C (+125°C with derating)
Rated voltage DC	≤+ 85°C

Dipped Tantalum Capacitor Cross Reference
Panasonic: EF Series; AVX: Tap Series; Sprague: 196D and 199D;
Kemet: T350/ T360; Mepco: 49GS; NEC: DN; Nichicon: 599;
NIC: NDTM; Hitachi: TSD-3; Matsuo: 202

Part Number	Product Number	Capacitance	Voltage	Size (mm) DxH	Pricing 1	10	100	OEM Pricing 1000	5000
33486	TM.1★	.1µf	35V	4.5x7	$.19	$.15	$.12	$.10	$.08
33507	TM.22★	.22µf	35V	4.5x7	.19	.15	.12	.08	.07
33523	TM.33	.33µf	35V	4.5x7	.19	.15	.12	.10	.08
33531	TM.47★	.47µf	35V	4.5x7	.19	.15	.12	.10	.08
33662	TM1★	1µf	35V	4.5x7	.25	.19	.15	.12	.10
94001	TM2.2/16	2.2µf	16V	4.5x7	.25	.19	.15	.10	.09
94019	TM2.2/25	2.2µf	25V	4.5x7	.25	.19	.15	.12	.10
33734	TM2.2★	2.2µf	35V	4.5x7.5	.29	.22	.17	.14	.11
33769	TM3.3★	3.3µf	35V	4.5x7.5	.35	.25	.22	.16	.14
94035	TM4.7/16	4.7µf	16V	4.5x7.5	.29	.22	.17	.14	.11
94043	TM4.7/25	4.7µf	25V	5x8.5	.35	.25	.22	.16	.14
33806	TM4.7★	4.7µf	35V	5.5x9	.39	.29	.25	.22	.19
33873	TM6.8★	6.8µf	35V	6x10	.59	.49	.32	.27	.22
94060	TM10/16★	10µf	16V	5x9	.49	.39	.32	.22	.19
94078	TM10/25	10µf	25V	5.5x9	.55	.45	.35	.29	.25
33689	TM10★	10µf	35V	6x10	.65	.55	.45	.32	.27
33718	TM15★	15µf	25V	6x10	.65	.55	.45	.32	.27
33751	TM22	22µf	6.3V	5x9	.39	.29	.25	.22	.19
94094	TM22/16★	22µf	16V	6x10	.55	.45	.35	.25	.22
94107	TM22/25	22µf	25V	7x10.5	1.25	.95	.65	.55	.49
33785	TM33★	33µf	25V	8x13	1.25	.95	.75	.55	.49
94123	TM47/16	47µf	16V	8x13	1.25	.95	.75	.65	.59
33822	TM47★	47µf	25V	9x14.5	1.95	1.69	1.49	1.15	.99
33700	TM100★	100µf	6.3V	7x10.5	1.49	1.25	.99	.75	.65

Tantalum

Mylar

Mylar Capacitors (±10%)
Metallized Polyester Film Capacitors

- High performance at low cost
- Non-inductive construction
- High stability with frequency over an extended operating life

Operating temperature range	-40°C to +85°C
Dissipation factor	≤.01 (at 1kHz)
Dielectric strength	150% of rated voltage for 5 seconds

Mylar Capacitor Cross Reference
Panasonic: ECQ-E Series; Sprague: DF/450P/451P/453P;
Westlake: 160/168/185/167/184/186; Mepco: 713A1/719A1/C280;
TRW: X601PE/X601CPE; Packtron: MF/RB; Secor: MMKS/MMKR/MMDR;
RIFA: PHE353/PHE354; Roederstein: MKT 1818/MKT 1822; WIMA: MKS;
CSF Thompson: MD/MC; Siemens: B325X-XX; Rubycon: MC/MN;
NIC: NEM/NRM; Nichicon: DDXM; Phillips: 712 A1 series

* Denotes 20% tolerance

Part Number	Product Number	Capacitance	Voltage	Case Size LxTxH (mm)	Pricing 1	10	100	OEM Pricing 1000	5000
26833	MY.001★	.001µf	100V	7x3x7	$.11	$.08	$.06	$.045	$.035
26868	MY.0022★	.0022µf	100V	6x3x10	.11	.08	.06	.045	.035
26876	MY.0047★	.0047µf	100V	6x3x9	.13	.09	.07	.055	.045
135600	MY.01/50	.01µf	50V	13x5x10	.10	.07	.05	.035	.03
26884	MY.01★	.01µf	100V	6x3x7	.13	.09	.07	.05	.04
26905	MY.022★	.022µf	100V	6x3x10	.15	.11	.08	.06	.05
26921	MY.033	.033µf	100V	8x4x11	.15	.11	.08	.06	.05
26930	MY.047★	.047µf	100V	8x4x12	.17	.13	.09	.07	.06
135554	MY.068/200	.068µf	200V	18x6x10	.19	.15	.12	.07	.05
135562	MY.1/50	.1µf*	50V	14x6x12	.15	.11	.08	.05	.04
26956	MY.1★	.1µf	100V	12.5x5x9.5	.19	.15	.12	.10	.08
93921	MY.1/250★	.1µf	250V	12.5x5.5x10	.29	.22	.17	.14	.11
93948	MY.1/630	.1µf	630V	26x7x13	.49	.39	.25	.22	.20
135546	MY.22/50	.22µf*	50V	17x9x16	.19	.15	.12	.07	.05
26972	MY.22★	.22µf	100V	12.5x5.5x10	.25	.19	.15	.12	.08
93964	MY.33/250★	.33µf	250V	18x7x12.5	.35	.25	.22	.19	.16
26999	MY.47★	.47µf	100V	18x6x11.5	.35	.25	.22	.19	.16
27001	MY1★	1µf	100V	18x7.5x14	.55	.45	.35	.22	.19
93999	MY2.2/250★	2.2µf	250V	26x9x16	.95	.79	.59	.49	.45

Ceramic Disc Capacitors

Ceramic Disc Capacitors (±5%)
50 Volt and 1000 Volt, NPO Temperature Stable

- Provides an accurate, predictable linear capacitance change with variations in operating temperature

Operating temperature range	-30°C to +85°C (+125°C with derating)
Capacitance change over temperature range	-6% to +9%
Dielectric withstanding voltage	2.5 times rated voltage for not < 1 second

Part Number	Product Number	Capacitance	Voltage	Dia. (mm)	Pricing 1	10	100	OEM Pricing 1000	5000
97236	DC22/1K5	22pf	1000V	5	$.19	$.15	$.12	$.10	$.08
97244	DC33/1K5	33pf	1000V	6	.19	.15	.10	.08	.06
97261	DC100/1K5	100pf	50V	7	.15	.11	.08	.06	.05

Ceramic Disc Capacitors (±20%)
50 Volt, 500 Volt and 1000 Volt, Z5U Temperature Coefficient

- Wide selection of temperature characteristics
- High insulation resistance

Operating temperature range	+10°C to +85°C
Capacitance change over temperature range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated voltage for not < 1 second

Part Number	Product Number	Capacitance	Voltage	Dia. (mm)	Pricing 1	10	100	OEM Pricing 1000	5000
135141	DC2.2/50	2.2pf	50V	5	$.05	$.04	$.03	$.025	$.02
15333	DC10	10pf	50V	5	.06	.05	.04	.03	.025
15405	DC22	22pf	50V	6	.06	.05	.04	.03	.025
15510	DC47	47pf	50V	5	.06	.05	.04	.03	.02
15541	DC100★	100pf	50V	5	.06	.05	.04	.03	.025
15413	DC220	220pf	50V	5	.06	.05	.04	.025	.02
15528	DC470	470pf	50V	5	.06	.05	.04	.03	.025
15190	DC.001★	.001µf	50V	6	.05	.04	.04	.025	.02
97341	DC.0022/1K20	.0022µf	1000V	6	.17	.13	.09	.06	.05
135167	DC.0027	.0027µf	500V	7	.06	.05	.04	.025	.02
15211	DC.0047★	.0047µf	50V	6	.06	.05	.04	.02	.018
15229	DC.01★	.01µf	50V	6	.05	.04	.03	.025	.02
97375	DC.01/1K20	.01µf	1000V	12	.19	.15	.12	.10	.08
15245	DC.022	.022µf	50V	8	.06	.05	.04	.03	.025
15253	DC.047★	.047µf	50V	8	.06	.05	.04	.03	.025
15270	DC.1★	.1µf	50V	8	.13	.09	.07	.055	.045

Low Voltage 50VDC Ceramic

High Voltage 1000VDC Ceramic

Mini Radial Electrolytic
(5mm = .197" H)
(7mm = .276" H)

Electrolytic Capacitors

Large Can Aluminum Electrolytic Snap Capacitors (±20%)
NRLM Series • Can-Top safety vent
- Designed as input filter of switched mode power supply standard 10mm (.400") Snap-In spacing
- Operating temperature range: -40°C to +85°C max. leakage current: 0.02CV (uA) or 3mA whichever is smaller

Snap-Ins!
FTP

CROSS REFERENCES: Aero M: LP/LPR; Elna:LP3/LP4;
Illinois Capacitor:LBA/LPR; Mallory:LDX; Marcon:CEAWF;
Nichicon:LLK/LLQ; Panasonic:TS-UP/TS-U; Phillips (MEPCO):3487/3489;
Rubycon:RSP; Sprague:80D/82D; United Chemicon:SMG(VN)/SMH(VN)

115449

Part Number	Product Number	Capacitance	Voltage	Size (mm) D x L	Pricing 1	10	OEM 100
115351	SN220/200	220µf	200V	30 x 31	$1.75	$1.49	$1.09
115377	SN470/200	470µf	200V	25 x 51	2.49	1.95	1.39
115406	SN2200/50	2,200µf	50V	30 x 27		Closeout	.99
115422	SN4700/50	4,700µf	50V	30 x 51	2.49	1.95	1.39
115431	SN6800/50	6,800µf	50V	30 x 51	2.95	2.49	1.69
115449	SN10000/50	10,000µf	50V	35 x 50	4.49	3.95	3.15

5mm Miniature Aluminum Radial Electrolytic Capacitors
General purpose low profile 85°C (±20%)

Operating temperature range	-40°C to +85°C
Max. Leakage Current (20°C)	0.01CV or 3µA

CROSS REFERENCES
UMA: LB/VX; UCC: SRE; Panasonic: KS

Part Number	Product Number	Capacitance	Voltage	Size (mm) DxH	Pricing 1	10	100	OEM 1000
94160	5R1/50	1µf	50V	4x5	$.15	$.11	$.08	$.06
94211	5R10/16	10µf	16V	4x5	.19	.15	.12	.08
94220	5R10/35	10µf	35V	5x5	.35	.25	.15	.13
94289	5R100/16	100µf	16V	6x5	.39	.29	.22	.15

7mm Miniature Aluminum Radial Electrolytic Capacitors
General purpose low profile 85°C (±20%)

CAPACITOR CROSS REFERENCES Elna: RC2; IC: RSS; Marcon: SSM;
Nichicon: USA/SR/SA; Rubycon: MS7; UCC: SRA/SRG; Panasonic: KA

Part Number	Product Number	Capacitance	Voltage	Size (mm) DxH	Pricing 1	10	100	OEM 1000
94369	7R10/35	10µf	35V	6x7	$.15	$.11	$.08	$.06
94431	7R100/16	100µf	16V	6x7	.19	.15	.12	.09
135124	7R220/10	220µf	10V	8x7	.19	.15	.12	.09

Miniature Aluminum Axial Electrolytic Capacitors
General purpose low voltage 85°C standard size (±20%)

Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or 2μA, whichever is greater

AXIAL CAPACITOR CROSS REFERENCES
Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS;
Sprague: 501D/513D; UCC: SME; Panasonic: SU
* Capacitor dimensions may vary

Part Number	Product Number	Capacitance	Voltage	Size (mm)* DxH	Pricing 1	10	100	OEM 1000
10866	A1/50★	1μf	50V	5x13	$.23	$.18	$.13	$.11
11076	A4.7/50★	4.7μf	50V	7x19	.23	.18	.13	.09
93577	A10/35	10μf	35V	6x14	.23	.18	.13	.09
10882	A10/50★	10μf	50V	7x17	.23	.18	.13	.09
10997	A22/50★	22μf	50V	6x18	.23	.18	.13	.09
135319	A47/25	47μf	25V	8x18	.23	.18	.09	.07
11105	A47/50★	47μf	50V	8x17	.27	.21	.17	.13
93551	A100/35	100μf	35V	10x22	.23	.18	.13	.09
10911	A100/50★	100μf	50V	10x21	.29	.24	.19	.15
11017	A220/50★	220μf	50V	13x27	.29	.24	.19	.15
54287	A470/16	470μf	16V	10x22	.29	.24	.19	.15
93622	A470/35	470μf	35V	13x31	.35	.29	.25	.17
11121	A470/50★	470μf	50V	17x32	.49	.39	.29	.22
93631	A1000/16	1000μf	16V	13x27	.39	.29	.22	.19
10954	A1000/25★	1000μf	25V	13x33	.65	.49	.39	.35
93649	A1000/35	1000μf	35V	13x32	.75	.59	.49	.45
11033	A2200/16	2200μf	16V	18x40	.69	.55	.45	.39
93657	A2200/35	2200μf	35V	16x32	1.25	.99	.85	.75
93665	A3300/25	3300μf	25V	16x32	1.25	.99	.85	.75
93673	A4700/25	4700μf	25V	22x42	1.75	1.49	1.25	.99
93681	A10000/16	10,000μf	16V	22x51	2.25	1.95	1.75	1.49

Axial Electrolytic

Radial Electrolytic

Miniature Aluminum Radial Electrolytic Capacitors
General purpose low voltage 85°C standard size (±20%)

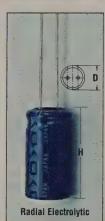| Operating temperature range		-40°C to +85°C
Leakage Current (20°C)	After 1 min.	0.03CV or 4μA, whichever is greater
	After 2 min.	0.01CV or 3μA, whichever is greater

RADIAL CAPACITOR CROSS REFERENCES
Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX;
Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU
* Capacitor dimensions may vary

Part Number	Product Number	Capacitance	Voltage	Size (mm)* DxH	Pricing 1	10	100	OEM 1000	5000
29831	R1/50★	1μf	50V	5x11	$.08	$.06	$.04	$.035	$.03
93729	R2.2/50	2.2μf	50V	5x12	.08	.06	.04	.035	.03
135183	R3.3/25	3.3μf	25V	4x9	.08	.06	.04	.035	.03
31000	R4.7/50★	4.7μf	50V	7x13	.08	.06	.04	.035	.03
29891	R10/50★	10μf	50V	7x12	.08	.06	.04	.035	.03
93737	R22/50★	22μf	50V	7x12	.09	.07	.05	.04	.03
93745	R33/50	33μf	50V	8x12	.13	.10	.06	.05	.04
135301	R47/10	47μf	10V	6x12	.08	.06	.03	.025	.02
93753	R47/25	47μf	25V	8x12	.10	.07	.05	.04	.035
31114	R47/50★	47μf	50V	8x12	.13	.10	.07	.05	.04
93761	R100/25★	100μf	25V	10x16	.15	.11	.08	.06	.05
29962	R100/50★	100μf	50V	10x17	.19	.15	.12	.09	.08
30496	R220/25★	220μf	25V	10x16	.17	.13	.10	.08	.07
93770	R220/35	220μf	35V	13x25	.23	.18	.13	.11	.09
93778	R220/50	220μf	50V	13x21	.29	.24	.19	.15	.13
93796	R330/25	330μf	25V	10x14	.23	.18	.13	.11	.09
93809	R470/16	470μf	16V	10x20	.23	.18	.13	.11	.09
31181	R470/25★	470μf	25V	13x20	.27	.21	.17	.13	.11
93817	R470/35	470μf	35V	13x21	.27	.21	.17	.13	.11
93825	R470/50	470μf	50V	16x22	.35	.29	.25	.22	.20
30015	R1000/16★	1000μf	16V	16x29	.29	.24	.19	.15	.13
93833	R1000/25	1000μf	25V	16x27	.65	.49	.39	.29	.25
93841	R1000/50	1000μf	50V	16x31	.79	.65	.55	.45	.39
133145	R2200/16	2200μf	16V	16x26	.65	.49	.39	.29	.25
30533	R2200/25★	2200μf	25V	16x32	.79	.65	.55	.45	.39
30891	R3300/25	3300μf	25V	16x31	1.05	.89	.75	.59	.49
93850	R4700/25	4700μf	25V	22x42	1.15	.99	.85	.69	.59
31510	R6800/16	6800μf	16V	18x36	1.49	1.25	1.09	.89	.79

Monolithic Capacitors

Monolithic Ceramic Capacitors (±20%)
Ceramic Epoxy Dipped (Z5U Series)

Applications:
- Data processing • Communications engineering • Photo industry
- Measuring and control equipment • Automotive electronic systems
- Entertainment industry • Medical engineering

Operating temperature range: Z5U — -10°C to +85°C
* Capacitor dimensions may vary

Part Number	Product Number	Capacitance	Voltage	Size (mm)* WxTxH	Pricing 1	10	100	OEM Pricing 1000	5000	10,000
81541	MD10★	10pf	50V	3.5x2x3	$.10	$.07	$.05	$.04	$.035	$.03
81533	MD22★	22pf	50V	4x2x4	.13	.10	.07	.05	.045	.04
138165	MD33	33pf	50V	3.5x2x3.5	.13	.10	.07	.05	.045	.04
138173	MD47	47pf	50V	4x2x5	.13	.10	.07	.05	.045	.04
81525	MD100★	100pf	50V	3.5x2x3	.13	.10	.07	.05	.045	.04
138181	MD.0022	.0022μf	50V	4x2x5.5	.13	.10	.07	.05	.045	.04
138190	MD.0033	.0033μf	50V	5x2x4	.13	.10	.07	.05	.045	.04
138202	MD.0047	.0047μf	50V	5x2x5.5	.13	.10	.07	.05	.045	.04
81517	MD.001★	.001μf	50V	4.5x2x3	.13	.10	.07	.05	.045	.04
138211	MD.022	.022μf	50V	4.5x2x5.5	.13	.10	.07	.05	.045	.04
138229	MD.033	.033μf	50V	5x3x5	.13	.10	.07	.05	.045	.04
25507	MD.01★	.01μf	50V	3.5x2x3	.13	.10	.07	.05	.045	.04
57621	MD.047★	.047μf	50V	2.5x2.5x3	.15	.11	.08	.05	.045	.04
25523	MD.1★	.1μf	50V	6x2x4	.19	.15	.12	.09	.08	.07
25540	MD.22★	.22μf	50V	6x2x4.5	.23	.18	.13	.11	.09	.08
138237	MD.33	.33μf	50V	6x2x8	.23	.18	.13	.11	.09	.08
25558	MD.47★	.47μf	50V	4.5x2.5x4.5	.23	.18	.13	.11	.09	.08
81509	MD1★	1μf	50V	6x3x7	.59	.45	.35	.29	.25	.22

Monolithic

136961
5mm Ceramic Trimmer

139459
6mm Ceramic Trimmer

94449
8mm Ceramic Trimmer

94449

Ceramic Trimmer Capacitors

5mm Ceramic Trimmer Capacitors
- Working volt.: 200VDC • Withstand volt.: 400VDC
- Turning torque: 35~200 g/cm • Operating temp. range: -30°C~+85°C
- Insulation resistance: >10MΩ min. @ 250VDC

Part Number	Capacitance Range (pf)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	OEM 1000
136944	3.0–10.0	> 300	Nil	$.59	$.49	$.39	$.29
136952	4.8–20.0	> 300	Blue	.59	.49	.39	.29
136961	5.5–30.0	> 200	Yellow	.59	.49	.39	.29
136979	9.0–50.0	> 200	Green	.59	.49	.39	.29
136987	16.0–90.0	> 200	Purple	Closeout	.49	—	—

6mm Ceramic Trimmer Capacitors
- Working voltage: 50VDC • Withstand voltage: 110VDC
- Turning torque: 20-200 g/cm • Temperature range: -30°C to +85°C
- Insulation resistance: >10MΩ min. @ 250VDC

Part Number	Capacitance Range (pf)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	OEM 1000
139432	3.0–10.0	> 300	White	$.59	$.49	$.39	$.29
139459	4.2–20.0	> 300	Red	.59	.49	.39	.29
139467	6.2–30.0	> 200	Green	.59	.49	.39	.29
139475	9.8–50.0	> 200	Brown	.59	.49	.39	.29

8mm .315" Ceramic Trimmer Capacitors (250WVDC) Through Hole
- Working volt.: 250VDC • Withstand volt.: 550VDC
- Turning torque: 40~200 g/cm • Operating temp. range: -55°C~+85°C
- Insulation resistance: 10MΩ min. @ 250VDC

Part Number	Capacitance Range (pf)	Q Factor @ 1MHz	Color Codes	Pricing 1	10	100	OEM 1000
32820	3.0–23.0	> 300	Blue	$1.15	$.95	$.75	$.55
134818	3.5–13.0	> 300	Ivory	.49	.39	.25	.19
32838★	4.0–34.0	> 300	Yellow	1.25	.99	.85	.65
32854★	6.0–70.0	> 200	Nil	1.25	.99	.85	.75
94449★	8.5–100	> 200	Purple	1.15	.95	.75	.65
94465★	8.5–120	> 200	Nil	1.15	.95	.75	.65

JAMECO

$1.39 SALE Sale price good at this quantity only
Sale price to the right of banner good for that quantity, or less

FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128

OEM Pricing Available!

**Any [____] is a [____] item. Pricing: $.99/c $4.95/k

161 Standard Resistor Values Chart

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms
†	2.2	29882	10 ✓*	31106	47 ✓*	30470	220 ✓#	29663	1.0K ✓#	31026	4.7K ✓*	30453	22K ✓*	29997	100K ✓#	31202	470K ✓*	†	2.2M
†	2.4	†	11	†	51	†	240	†	1.1K	31237	5.1K ✓*	†	24K	†	110K	†	510K	†	2.4M
†	2.7	†	12	†	56	30605	270 ✓*	†	1.2K*	31270	5.6K ✓*	†	27K	†	120K	†	560K	†	2.7M
†	3.0	†	13	†	62	†	300	†	1.3K	†	6.2K	†	30K	†	130K	†	620K	†	3.0M
†	3.3	†	15	†	68	30867	330 ✓*	29760	1.5K ✓*	†	6.8K ✓*	30841	33K ✓*	†	150K	†	680K	†	3.3M
†	3.6	†	16	†	75	†	360	†	1.6K	†	7.5K	†	36K	†	160K	†	750K	†	3.6M
†	3.9	†	18	†	82	†	390 *	†	1.8K	†	8.2K	†	39K	†	180K	†	820K	†	3.9M
†	4.3	†	20	†	91	†	430	30277	2.0K ✓*	†	9.1K	†	43K	†	200K	†	910K	†	4.3M
†	4.7	†	22	29946	100 ✓#	31165	470 ✓*	30314	2.2K ✓*	29911	10K ✓#	31149	47K ✓*	30525	220K	29698	1.0M ✓*	†	4.7M
†	5.1	†	24	†	110	†	510	†	2.4K	†	11K	†	51K	†	240K	†	1.1M	†	5.1M
†	5.6	†	27	30082**	120	†	560	†	2.7K ✓*	†	12K	†	56K	†	270K	†	1.2M	†	5.6M
†	6.2	†	30	†	130	†	620	†	3.0K	†	13K	†	62K	†	300K	†	1.3M	†	6.2M
†	6.8	†	33	30162	150 ✓*	31499	680 ✓*	30672	3.3K ✓#	30146	15K ✓#	†	68K	†	330K	†	1.5M	†	6.8M
†	7.5	†	36	†	160	†	750	†	3.6K	†	16K	†	75K	†	360K	†	1.6M	†	7.5M
†	8.2	†	39	†	180	†	820	†	3.9K	†	18K	†	82K	†	390K	†	1.8M	†	8.2M
†	9.1	†	43	†	200	†	910	†	4.3K	†	20K	†	91K	†	430K	†	2.0M	†	9.1M
																		29938	10M ✓*

K=1000 ohms M=1,000,000 ohms – For (✓), (*), (#) information, see symbol column in 1/4 watt Resistor Assortments below.

Any value with part number is a stock item. † Any standard resistor value above (without part number) may be special ordered – 1,000 pc. minimum – $9.95/K (bulk)

.021" lead diam. 1.08" .250" 1.08" .09" body diam.

Resistor Color Code

- 1st #
- 2nd #
- # of zeros
- Tolerance

- All values shown in ohms (Ω)
- Values may not be combined for quantity price breaks
- Sold in minimum increments of 100 each

1st & 2nd Band	3rd Band		4th Band
0 - Black	Black	1	Gold - ±5%
1 - Brown	Brown	10	
2 - Red	Red	100	
3 - Orange	Orange	1,000	Silver - ±10%
4 - Yellow	Yellow	10,000	
5 - Green	Green	100,000	
6 - Blue	Blue	1,000,000	
7 - Violet			No Band - ±20%
8 - Gray	Silver	0.01	
9 - White	Gold	0.1	

1/4 Watt Carbon Film Resistors +5% (Bulk)

To order: Just use 5-digit part number adjacent to ohms in above Resistor Values Chart	Pricing	OEM Pricing			
	100 pc. increments	Sold in increments of 1000 (1000 per box)			
Part No./Ohms (see chart above)	100 (min.)	1K	5K	10K	25K
	$1.69/C	$7.75/K	$6.95/K	$6.49/K	$5.75/K

1/4 Watt Carbon Film Resistor (±5%) Assortments

Part No.	Product No.	Symbol	Description	1-4	5-9	10-24
10719	ASST8★	N/A	5 each 70 values (every other value from R10 ohm-R5.6 Meg) 1/4 watt carbon film (350 pcs.)	$9.95	$8.95	$7.49
103165	ASST30★	*/#	10 each (24 (*) values) 50 each (6 (#) values) 1/4 watt carbon film resistors (540 pcs.)	13.95	12.49	10.95
10663	ASST27	✓	100 each (27 (✓) values) 1/4 watt carbon film resistors (2,700 pcs.)	19.95	17.95	16.49
10655	ASST161	N/A	100 each 161 values (resistor values chart above) 1/4 watt carbon film resistors (16,100 pcs.)	119.95	107.95	96.95
81832	CAB14R★	N/A	1/4 watt resistor component cabinet kit – 30 values (540 pcs.) see page 21	28.95	25.95	23.95

1/8 Watt Carbon Film Resistors (±5%)

1/8 & 1/2 Watt Resistor Assortments Value Chart (Ohms)

10 ✓*	150 ✓*	330 ✓*	680 ✓*	2.0K ✓*	3.3K ✓*	5.6K ✓*	15K ✓*	33K ✓*	470K ✓*
47 ✓*	220 ✓#	390 *	1.0K ✓*	2.2K ✓*	4.7K ✓*	6.8K *	22K ✓*	47K ✓*	1.0M ✓*
100 ✓#	270 ✓*	470 ✓*	1.5K ✓*	2.7K ✓*	5.1K ✓*	10K ✓*	27K *	100K ✓#	10M ✓*

(✓), (*), (#) symbols indicate Resistor values included in Assortments below.

Any standard resistor value (above) may be special ordered – 1,000 pc. minimum – $12.95/K (bulk) – call for larger quantity pricing.

1/8 Watt Carbon Film Resistor (±5%) Assortments

Part No.	Product No.	Description	1-4	5-9
108281	ASST1870★	5 each 70 values (every other value from R10 ohm-R5.6M) (see chart – top of page) 1/8 watt carbon film (350 pcs.) **SALE**		$7.95
108302	ASST1830★	10 each (24 (*) values) 50 each (6 (#) values) 1/8 watt carbon film resistors (540 pcs.) (see chart above) **SALE**		11.95
108290	ASST1827	100 each (27 (✓) values – see chart above) 1/8 watt carbon film resistors (2,700 pcs.)	32.95	29.95
108311	ASST18161	100 each 161 values (resistor values chart – top of page) 1/8 watt carbon film resistors (16,100 pcs.)	149.95	134.95
108329	CAB182R	1/8 watt resistor component cabinet kit – 30 values (540 pcs.) see page 21	29.95	26.95

1/2 Watt Carbon Film Resistors (±5%)

1/2 Watt Carbon Film Resistor (±5%) Assortments

Part No.	Product No.	Description	1-4	5-9
107836	ASST1270★	5 each 70 values (every other value from R10 ohm-R5.6M) (see chart – top of page) 1/2 watt carbon film (350 pcs.) **SALE**		$11.49
107852	ASST1230★	10 each (24 (*) values) 50 each (6 (#) values) 1/2 watt carbon film resistors (540 pcs.) (see chart above) **SALE**		15.95
107844	ASST1227	100 each (27 (✓) values – see chart above) 1/2 watt carbon film resistors (2,700 pcs.)	34.95	31.49
107861	ASST12161	100 each 161 values (resistor values chart – top of page) 1/2 watt carbon film resistors (16,100 pcs.) **SALE**		154.95
107879	CAB12R	1/2 watt resistor component cabinet kit – 30 values (540 pcs.) see page 21	32.95	29.95

Resistor Networks

Single-In-Line "SIP" Resistor Networks
8, 10-Pin Bussed (25mW/Resistor) ±2%

Features (8BRN/10BRN):
- Rated power per resistor at 70°C: 125mW/ resistor
- Operating temp. range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Max. working voltage: 100V or rated power x resistance, whichever is smaller
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- 8-pin package (7 resistors) = **8BRN** 10-pin package (9 resistors) = **10BRN**
- Low profile 5mm (.200" body height)
- Low profile is compatible w/ DIPs
- Cermet thick film construction

L MAX MAX 2.54 max 5.0 max 0.25 ±0.1 0.50 ±0.1 1 2 max 3.46 ±0.1 Dimensions: mm

Part No.	Pins	Ohms
97826	8	10K
97851	10	330
97869	10	470
97877	10	1.0K
97893	10	2.2K
24660	10	4.7K
24643	10	10K
98087	10	47K
98095	10	100K

Pricing			OEM Pricing	
1	10	100	1000	5000
$.25	$.19	$.16	$.13	$.11

SIP and DIP Resistor Network Cross Reference Chart

Jameco	CTS	A – B	Bourns	Dale	Beckman	Sprague	MEPCO
8BRN...	770-81-R...	708A...	4608X-101...	CSC08A01...	L08-1-R...	356CF... X2PD	9S08... GL002
10BRN...	770-101-R...	710A...	4610X-101...	CSC10A01...	L10-1-R...	256CX... X2PD	9S10... GL002
16IRN...	761-3-R...	316B...	4116R-001...	MDP16-03...	898-3-R...	916C... X5SR	D16H... 12-J

Dual-In-Line "DIP" Resistor Networks
16-Pin Isolated (140mW) ±2%

Features (16IRN):
- Maximum operating voltage: 100V • Tolerance ±2%
- Temperature coefficient: ±100ppm/°C
- Operating temperature: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability / Solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation
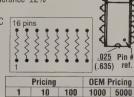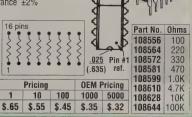
16 pins .025 Pin #1 ref. (.635)

Part No.	Ohms
108556	100
108564	220
108572	330
108581	470
108599	1.0K
108610	4.7K
108628	10K
108644	100K

Pricing			OEM Pricing	
1	10	100	1000	5000
$.65	$.55	$.45	$.35	$.32

Instrumentation Knobs
(1/8" and 1/4" Shaft Diameters)

102787/104176: • Brass insert and set screw for strength and durability
• Compatible with all Jameco rotary switches (pg 38) • Fits 0.25" shafts
136240: • Used with 1/2 watt and 2 watt linear taper
potentiometers (opposite page) • Fits all 0.25" shafts
123123: • Brass insert, dual set screws • Fits 0.12" shafts
138413: • Brass insert and set screw for strength and security
• Black knob is complimented by chrome trim • Fits 0.125" shafts
138392: • Brass insert, dual set screws • Fits 0.25" shafts
• Black knob with inset chrome top

102787   104176

123123   138413   138392

Weight: .02 lbs.

Part No.	Product No.	Description	Shaft Dia. (in.)	Size	1-9	10-99	100-999
123123	KN183	Black w/ flange (.090")	.125	.52"Dia. x .65"H	$.79	$.65	$.39
138413	PKDT60B	Black round chrome	.125	.78"Dia. x .53"H	.79	.65	.39
102787	KN141★	Black pointed	.250	1.25"L x .54"H	.65	.45	.39
104176	KN143★	Black round control	.250	.75"Dia. x .49"H	.79	.65	.49
136240	KN145	Black round chrome	.250	.54"Dia. x .52"H	1.09	.85	.65
138392	PKG90B	Black round chrome	.250	.85"Dia. x .56"H	.79	.65	.39

Aluminum Instrumentation Knobs
(1/8" and 1/4" Shaft Diameters)

138384: • Narrow aluminum knob has coarse surface for sensitive control
• Dual set screws assure a tight attachment • Bright red indicator
138481/138499/138501/138510: • Quality design gives an attractive look
• Includes set screw for secure attachment • Black position pointer
142375: • White position pointer

138384   138481   138510

Weight: .01 lbs.

Part No.	Product No.	Description	Shaft Dia. (in.)	Size	1-9	10-99	100-999
138384	KD500G	Aluminum knob	.125	.50"Dia. x .63"H	$1.25	$.99	$.79
138481	KN031	Aluminum knob	.250	.61"Dia. x .65"H	1.49	1.29	1.15
142375	KN034	Aluminum knob (black)	.250	.61"Dia. x .65"H	1.59	1.39	1.25
138499	KN030	Aluminum knob	.250	.79"Dia. x .77"H	1.59	1.39	1.25
138501	KN032	Aluminum knob	.250	.87"Dia. x .75"H	1.95	1.69	1.49
138510	KN033	Aluminum knob	.250	1.18"Dia. x .87"H	2.49	2.25	1.95

Color Coded Instrumentation Knobs for Knurled Shafts (6mm)

These black, durable plastic knobs are easily identified by their bright colored ends.
• Fits 6mm (0.238"), 18 tooth knurled shaft • White position indicator stripe
• Size for all knobs: .68"Dia. x .87"H (Diameter measurement is for knob base) • Weight: .01 lbs.

138536   138544   138528   138552

Part Number	Product Number	End Color	Shaft Dia. (in.)	1-9	10-99	100+
138536	KN3013	Blue	.238	$.49	$.39	$.35
138544	KN3014	Green	.238	.49	.39	.35
138528	KN3012	Yellow	.238	.49	.39	.35
138552	KN3015	Red	.238	.49	.39	.35

PVC and Polyolefin Heat Shrink Tubing

• 2:1 uniform shrink ratio
• Color: black
• Will not cold flow or melt
• Temperature range: -45°C to +125°C
• Shrink temperature: 175°C
• See heat gun page 75 • Weight: .01 lbs.
• Length 39" (1 meter), sold as 1 increment

72063

PVC

Part No.	Before	After (Dia.)	1-9	10-99	100-499
134885	1/8"	1/16"	$.39	$.29	$.19
70631	1/4"	1/8"	.49	.39	.32
70623	1/2"	1/4"	.69	.55	.45
70666	3/4"	3/8"	.75	.59	.49

Polyolefin
• Dielectric strength: 1300V • Shrink temperature: 121°C
• Flexible • Flame retardant

Part No.	Before	After (Dia.)	1-9	10-99	100-499
71327	1/16"	1/32"	$.89	$.69	$.55
71870	3/32"	3/64"	1.15	.89	.69
71280	1/8"	1/16"	1.25	.99	.75
72063	1/4"	1/8"	1.49	1.25	.99

Memory Back-Up Capacitors

Features:
• Excellent voltage holding characteristics for low back-up currents
• Small size vs. capacitance
• Capacitance ranges from .047 to 1 farad • Voltage: 5.5VDC

Applications:
• Back-up on CMOS microcomputers, static RAM, DTSs (digital tuning systems)
• Memory back-up of remote controllers

Part No.	Product No.	Cap. (Farad)	1-9	10-99	100
142922	MBC.047/5.5	.047	$1.75	$1.49	$1.25
142931	MBC.10/5.5	.10	2.19	1.89	1.59
142949	MBC.22/5.5	.22	2.29	1.95	1.69
143001	MBC.33/5.5	.33	3.95	3.49	2.75
143010	MBC.47/5.5	.47	3.95	3.49	2.75
142957	MBC 1.0/5.5	1.0	4.95	4.49	3.49

NTC Thermistors

• Material of coating: EPOXY
• Material of leads: tinned copper wires
• Color of coating: green • Weight: .001 lbs.

Dimensions (Units: mm)

D	D (max.)	L (min.)	d	p	T (max.)
5	6.5	31	0.5	3.5	5

Part No.	Product No.	R25 (Ω)	R25/R50	B Constant (Nominal)	Operating Current (max.)	Permissible Current (max.)	1-9	10-99	100-999	OEM 1000
142033	TTC101	100 +10%	2.293	3200K	15mA	170mA	$.59	$.49	$.39	$.29
142041	TTC201	200 +10%	2.479	3500K	15mA	130mA	.59	.49	.39	.29
142050	TTC202	2K +10%	2.822	4000K	5mA	50mA	.59	.49	.39	.29
142068	TTC502	5K +10%	2.786	3950K	3mA	30mA	.59	.49	.39	.29
142076	TTC103	10K +10%	2.859	4050K	2mA	20mA	.59	.49	.39	.29
142084	TTC104	100K +10%	3.131	4400K	1mA	10mA	.59	.49	.39	.29

Radial Lead Varistors

Radial Lead Varistors ZA Series

• Low DC voltage applications • Printed circuit board designs
• UL recognized as "transient voltage surge suppressors"
• Used for highly sensitive devices • Low transient energy
• Computer equipment • Alarm systems • Weight: .001 lbs.

ZA Series		Size	Characteristics at 25°C									
			Varistor Voltage			Maximum Clamping Voltage						
		Disc.	@ 1 mA DC Test Current			@ Ip Value Current (8/20μs)		Pricing				OEM
Part Number	Product Number	Dia. (mm)	Min. $V_{N(dc)}$ Volts	$V_{N(dc)}$ Volts	Max. Volts	V Volts	Ip=2.0A Amps	1	10	100		1000
96891	V8ZA1	7	6.0	8.2	11.0	22	5	$.35	$.29	$.25		$.22

Radial Lead Varistors LA Series

• AC power line applications • UL recognized as "transient voltage surge suppressors"
• UL recognized as "across-the-line components" • High energy absorption • Power supplies

34446   34462

LA Series		Size	Max. Ratings (+85°C) Characteristics at 25°C									
		Disc.	Continuous		Transient	Maximum Clamping Voltage						
			RMS Voltage	DC Voltage	Energy (10²/1000μs)	@ Ip Value Current (8/20μs)		34446			34462	
Part Number	Product Number	Dia. (mm)	$V_{m(ac)}$ Volts	$V_{m(dc)}$ Volts	W_{tm} Joules	V Volts	Ip=2.0A Amps	Pricing				OEM
								1	10	100		1000
34454	V130LA2	7	130	175	11	340	10	$.39	$.35	$.29		$.25
34446	V130LA10A	14	130	175	38	340	50	.49	.39	.32		.29
34462	V130LA20A	20	130	175	70	340	100	.75	.59	.49		.45
34471	V250LA20A	14	250	330	72	650	50	.59	.49	.45		.39

1/10 Watt Carbon Slide Potentiometers (±20%)

- Vertical mount • Type 448
- Power rating: 0.1W @ 55°C
- Slide travel: 0.787" • Weight: .003 lbs.
- Voltage rating: 200VDC

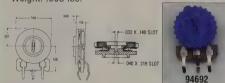| Part No.	Product No.	Ohms	1	10	100	500
140564	PLB5K	5K	$.75	$.59	$.45	$.35
140572	PLB10K	10K	.75	.59	.45	.35
140581	PLB100K	100K	.75	.59	.45	.35

1/5 Watt Audio Taper B Potentiometers

- Power ratings: 0.2W
- Residual resistance:
  < 5Ω between T1 - T2
  < 5Ω between T2 - T3
- Dielectric strength: 300VAC for one minute
- Rotation angle: 280°
- Working life: > 10K cycles
- Plastic vertical control shaft
- Shaft diameter: 0.23"
- Shaft length: 0.3"
- Base width: 0.4"
- Base length: 0.5"
- Maximum panel thickness: 0.3"
- Weight: 0.004 lbs.

Part No.	Product No.	Ohms	1	10	50	100
138827	PAB5K	5K	$.79	$.65	$.49	$.39
138843	PAB10K	10K	.79	.65	.49	.39
138851	PAB100K	100K	.79	.65	.49	.39

1/4 Watt 15mm Miniature Potentiometers (±20%)
X201 (19/32") Vertical Mount

- Miniature size – knob 15mm (19/32") diameter
- Rim to guide screwdriver
- Reliable CTS composition resistance element
- Power rating, watts: below 5kΩ – 1/4 watt @ 40°C
  5kΩ and above – 1/4 watt @ 55°C
- Voltage rating: 350 VDC • Resistance taper: linear
- Angle of rotation: total rotation: 260° ±5°
- Weight: .003 lbs.

Part No.	Product No.	Ohms	1	10	100
94692	X201R1K	1K	$.49	$.39	$.29
35502	X201R252B	2.5K	.49	.39	.29
94713	X201R10K	10K	.49	.39	.29
94730	X201R100K	100K	.49	.39	.29

5 Watt Linear Taper Wire Wound Potentiometers (±20%)

- 5W @ 70°C • Non-rotation key 140556
- Temperature range: -10°C to 70°C
- Shaft diameter: 0.235" (6mm)
- Mounting hole: 0.32" • Weight: .003 lbs.
- Max. panel thick.: 0.1" • Shaft length: 0.67"
- Solder eyelet diameter: 0.055" x 0.13"

Part No.	Product No.	Ohms	1	10	100	500
140513	PW5B100	100	$2.95	$2.65	$2.25	$1.95
140521	PW5B500	500	2.95	2.65	2.25	1.95
140548	PW5B1K	1K	2.95	2.65	2.25	1.95
140556	PW5B2K	2K	2.95	2.65	2.25	1.95

1/2 Watt 1/4" Round Single-Turn Cermet Potentiometers (±10%)

- 1/2 watt linear taper @ 85°C
- Sealed to withstand any wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C • TO-5 grid
- Top adjustment • Wt.: .002 lbs.
- Terminals: solderable pins

Equivalent to:	
Beckman	82M
Bourns	3329P
Mepcopal	8050
MEC	471
Murata	3321P
Spectrol	62-3
VRN	171
Weston	567

Part No.	Product No.	Ohms	1	10	100	500
95441	3329P1K	1K	$.79	$.69	$.59	$.39
95450	3329P5K	5K	.89	.79	.69	.59
96719	3329P10K	10K	.89	.79	.69	.59
95484	3329P100K	100K	.89	.79	.69	.59
95492	3329P1MEG	1M	.89	.79	.69	.59

1/2 Watt 3/8" Square Single-Turn Cermet Potentiometers (±10%)

- 1/2 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- TO-5 grid • Top adjusting
- Sealed to guard against contaminants • Wt.: .002 lbs.
- Temperature range: -55°C to +125°C

Equivalent to:	
Beckman	72PR
Bourns	3386P
Mepcopal	8038
Murata	3104P
Spectrol	63P
VRN	780-12P
Weston	840P

Part No.	Product No.	Ohms	1	10	100	500
43123	63P500★	500	$.79	$.69	$.59	$.55
42964	63P1K★	1K	.79	.69	.59	.43
43043	63P2K	2K	.79	.69	.59	.55
43078	63P5K★	5K	.79	.69	.59	.55
43001	63P10K★	10K	.79	.69	.59	.55
43051	63P20K★	20K	.79	.69	.59	.43
43107	63P50K★	50K	.79	.69	.59	.55
43027	63P100K★	100K	.79	.69	.59	.55
43060	63P300K	300K	.49	.39	.25	.19
63212	63P500K	500K	.79	.69	.49	.45
42981	63P1MEG★	1M	.79	.69	.59	.55
105216	63P2MEG	2M	.69	.59	.35	.25

3/4 Watt 3/4" Rectangular 15-Turn Cermet Potentiometers (±10%)

- 3/4 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- Side adjusting
- Sealed to guard against contaminants • Wt.: .003 lbs.
- Temperature range: -55°C to +125°C

Equivalent to:	
Beckman	89PR
Bourns	3006P
Mepcopal	8034
Murata	2101P
Spectrol	43P
VRN	961-20
Weston	830P

Part No.	Product No.	Ohms	1	10	100	500
41937	43P500★	500	$.99	$.89	$.79	$.69
41785	43P1K★	1K	.99	.89	.79	.69
41865	43P2K	2K	.99	.89	.79	.59
41890	43P5K★	5K	.99	.89	.79	.69
41822	43P10K★	10K	.99	.89	.79	.69
41873	43P20K★	20K	.99	.89	.79	.69
41911	43P50K★	50K	.99	.89	.79	.69
41849	43P100K★	100K	.99	.89	.79	.69
41953	43P500K★	500K	.99	.89	.79	.69
41806	43P1MEG★	1M	.99	.89	.79	.69

1/2 Watt Linear Taper Potentiometers (±10%)

- 1/2 watt @ 70°C
- Temperature range: -55°C to +125°C
- Non-slotted shaft end • Non-rotation key
- Mounting hole: 0.3125" • Weight: .03 lbs.
- Shaft diameter: 0.25" • Shaft length: 0.5625"
- Max. panel thickness: 0.1875"
- Solder eyelet diameter: 0.0625"

Part No.	Product No.	Ohms	1	10	100	500
29049	P1K★	1K	$.89	$.79	$.69	$.59
29196	P5K★	5K	.89	.79	.69	.59
29081	P10K★	10K	.89	.79	.69	.59
29102	P100K★	100K	.89	.79	.69	.59
29065	P1MEG★	1M	.89	.79	.69	.59

2 Watt Linear Taper Potentiometers (±20%)
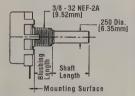
- 2 watt @ 70°C ambient
- Temperature range: -10°C to +70°C
- Mounting hole: 0.375" (includes mounting hardware)
- Shaft diameter: 0.25"
- Shaft length: 0.825"
- Solder eyelet dia: 0.075"
- Max. panel thickness: 0.15"
- Non-rotation key
- Base length: 0.25" • Wt.: .03 lbs.
- See knobs – opposite page

Part No.	Product No.	Ohms	1	10	50	100
123959	PT1K	1K	$2.95	$2.65	$2.25	$1.95
123967	PT5K	5K	2.95	2.65	2.25	1.95
123975	PT10K	10K	2.95	2.65	2.25	1.95
123983	PT100K	100K			Closeout	1.95

2 Watt Linear Taper Potentiometers (±10%)
Conductive Plastic Military RV4N-AYSD

- Military No.: RV4N-AYSD
- Clarostat 53C3 / OHMITE CMU
- 2 watt @ 70°C ambient • Non-rotation key
- Temperature range: -55°C to +120°C
- Mounting hole: 0.375" (includes mounting hardware)
- Shaft diameter: 0.25" • Shaft length: 0.875" (7/8")
- Solder eyelet dia: 0.0625" • Weight: .08 lbs.
- Max. panel thickness: 0.25" • Base length: 0.35"
- See knobs – opposite page • Slotted shaft end

Part No.	Product No.	Ohms	1	10	50	100
13936	CMU1021★	1K	$6.95	$5.95	$4.95	$4.35
13995	CMU5021★	5K	6.95	5.95	4.95	4.35
13952	CMU1031★	10K	6.95	5.95	4.95	4.35
54869	CMU2531	25K	6.95	5.95	4.95	4.35
95417	CMU5031	50K	6.95	5.95	4.95	4.35
13979	CMU1041★	100K	6.95	5.95	4.95	4.35
95425	CMU1052	1M	6.95	5.95	4.95	4.35

DIP Switches

139002   38842
139011   38800

- Switch contacts: SPST • Pre-tinned leads
- Easy activation • 50VDC @ 100mA • Wt.: .06 lbs.
- Switches are numbered • Molded construction
- Standard-raised lever • LP – low profile lever
  (not on LP switches)   (switch is flush to casing)

Compatible Jameco Socket Chart

Switch	Socket	Switch	Socket	Switch	Socket
109057	112192	38826	37161	101856	38113
38818	51570	38834	37161	38797	38607
139002	51570	38842	37372	139029	38607
109065	37161	139011	37372	38800	39378

Part Number	Product Number	No. of Pos.	1-9	10-99	100-249	250-999	1000+
109057	206-2	2	$.69	$.55	$.45	$.39	$.35
38818	206-4★	4	.75	.65	.55	.45	.39
139002	206-4LP	4	.75	.65	.55	.45	.39
109065	206-5	5				Closeout	.19
38826	206-6	6	.75	.65	.55	.45	.39
38834	206-7	7	.75	.65	.55	.35	.25
38842	206-8★	8	.85	.69	.59	.49	.45
139011	206-8LP	8	.85	.69	.59	.49	.45
101856	206-9	9	.55	.45	.35	.25	.19
38797	206-10	10	.95	.75	.65	.55	.49
139029	206-10LP	10	.95	.75	.65	.55	.49
38800	206-12	12	.99	.79	.69	.59	.55

Mini Push-Button Binary Switches

- Operating temperature: -10°C to +65°C
- 28VDC @ 10A • Straight PCB
- 0.12" character height • Wt.: .01 lbs.
- Snap together • Break before make

136557: positive logic ("0" all open output)   136557
137197: reversed logic ("0" all common)

Part Number	Product Number	Description	1-9	10-49	50-99
136557	MX061	10 pos. straight BCD sw.	$3.95	$3.49	$2.95
137197	MX061N	10 pos. mini PB BCD sw.		Closeout	2.95

Replacement Switches

For Computer Cases
For Jameco and most other cases.

See page 112 for computer cases!

PC Toggle Switch
- For many desktop and large tower cases
- DPST • 250V @ 10A
- UL/CSA/VDE approved
- Size: 1.2"L x 0.7"W x 1.1"D

Part No.	Description	Wt. (lbs.)	1-9	10-99	100-249
127036	PC toggle sw.	.05	$1.95	$1.49	$1.19

PC Push Button Switch
- Alternate action switch (DP)
- 250V @ 7.5A
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D

Part No.	Description	Wt. (lbs.)	1-9	10-99	100-249
127044	PC push button	.04	$2.49	$1.95	$1.49

PC Rocker Switch
- For mini-tower cases (P/N 20546 – pg 112)
- DPST • 250V @ 10A
- UL/CSA approved
- Size: 0.9"L x 1.2"W x 1.4" D

Part No.	Description	Wt. (lbs.)	1-9	10-99	100-249
127028	PC rocker	.03	$2.49	$1.95	$1.49

DIP Switches – Tri-State

- Switch contacts: bussed, tri-state • Labeled tri-state positions (+, 0, -)
- Raised switch lever with numbered switches • Two isolated busses
- 24VDC @ 25mA • Pre-tinned leads • Molded construction • Wt.: .002 lbs.

138991

Part No.	Product No.	No. of Positions	Compatible Jameco Socket	1-9	10-99	100-249	250-999	1000+
138915	ETA104E	4	51570	$1.49	$1.25	$1.09	$.95	$.79
138991	ETA108E	8	37372	1.75	1.49	1.15	.99	.85

Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Molded-in terminals and fully sealed construction
- Material: 94V-0 grade, UL approved fire retardant plastic
- Maximum load rating (switching): 25mA @ 24VDC
- Operating force: 500gf-cm max. • Life: 10,000 cycles min.
- Shape: square • Color: blue • Terminals: PC pin leads
- Top adjust size: 0.39"W x 0.2"D x 0.39"H • Side adjust size: 0.39"W x 0.3"D x 0.39"H • Weight: .003 lbs.

139635   139619

Part No.	Product No.	Position	Adjust	Code Type	1-9	10-99	100-249
139627	ERD108RS	8	top	Octal	$2.95	$2.49	$1.95
139635	ERD110RS	10	top	BCD	2.95	2.49	1.95
139651	ERD116RS	16	top	Hex	2.95	2.49	1.95
139619	ERD108RR	8	side	Octal	3.49	3.15	2.75
139643	ERD110RR	10	side	BCD	3.49	3.15	2.75
139660	ERD116RR	16	side	Hex	3.95	3.49	2.95

Rotary Switches

- Mounting hole diameter = 3/8" • Make before break • Round shaft
- Washer and nut included • Insulation resistance: 10MΩ (min.)
- Compatible with Jameco rotary knobs 102787 and 104176 (pg 36)
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer
- Contact rating: 0.3A@ 30VDC • Contact resistance: 30mΩ • Shaft size: 0.375"L x 0.25"Dia. • Wt.: .03 lbs.

Part No.	Product No.	Poles	Positions	Description	Lead Type	1-9	10-99	100-999
101531	RS026	1	12	Panel mount	0.25" solder lugs	$1.39	$1.19	$.89
101573	RS022	2	6	Panel mount	0.25" solder lugs	1.39	1.19	.89
101565	RS023	3	4	Panel mount	0.25" solder lugs	1.39	1.19	.89
101557	RS024	4	3	Panel mount	0.25" solder lugs	1.39	1.19	.75

Push-Button Binary Coded Decimal (BCD) Switch

26788 (2)

Thumbwheel Binary Coded Decimal (BCD) Switch

26817 (2)

Pushbutton and Thumbwheel Switch Specifications:
- Contact resistance: 100mΩ max. • Break before make • 0.15A @ 50VAC/28VDC • Weight: .01 lbs.
- 1/16" maximum panel thickness • Continuous load: 1 amp max. • Switches snap together
- Gold plated BE-CU alloy contacts • Operating temperature: -40°C to +85°C • Front snap tab mounting

Part No.	Product No.	Description	Size	Char. Height	1-9	10-99	100-999
26788	MX72	10-position push-button	1.3"L x 0.4"W x 1.0"D	0.19"	$4.95	$4.25	$3.49
26761	MXEP2	End plates for MX72	—	—	.99	.79	.65
26817	MX83	10-position thumbwheel	1.1"L x 0.1"W x 1.5"D	0.25"	4.95	4.25	3.49
26770	MXEP3	End plates for MX83	—	—	.99	.79	.65

SPST Round Keylock Switches

- Key removable from 2 positions • Use for computer replacement
- Includes mounting nut • Recommended for security systems
- Mounting hole = 0.75" except P/N 106649 = 0.5" • Wt.: 0.2 lbs.   22349   105831   106649

Part No.	Product No.	No. Flat, Dia.	Length	Style	Terminal	Voltage/Current	Keys	1-9	10-99	100-249
22349	KS1B	1, .49"	1.51"	SPST	Barrel	125VAC/3A	2		Closeout	$3.25
105831	KS3B	2, .66"	1.48"	SPST	.25" quick connect	125VAC/6A	2	3.95	3.55	3.19
106649	KS4B	2, .21"	.55"	SPST	Barrel	125VAC/3A	2	2.95	2.49	1.95
118279	KS8B	2, .49"	1.97"	SP4T	Solder	125VAC/6A	2		Closeout	.49

C&K Rota-Slide® Rotary Switch

- Mounting hole diameter = .385" (mounting nut included), positioning tab hole diameter = .130"
- Contact rating: 12A @ 125VAC/6A @ 250VAC
- Panel mount • 0.25"Dia. shaft size • Wt.: .02 lbs.

Part No.	Product No.	Positions	Price
87652	SWH203	3	Closeout $.15

Otto Push-Button Micro Switch

- SPDT on (on) • Weight: .003 lbs.
- Contact rating: 7A @ 115/250VAC

Part No.	Product No.	Lead Type	Price
98765	SWB2	Turret terminals	Closeout $.25

Rocker and Lever Handle Switch

- Lead type: PC, right angle
- Style: SPDT on-on
- Contact rating: 5A @ 120VAC, 2A @ 250VAC
- Rocker color: black
- Size: 0.7"H x 0.4"W x 0.5"D
- Weight: .01 lbs.

Part No.	Product No.	Description	1-9	10-99	100+
140530	CK7101	PC mount	$.99	$.79	$.49
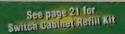
Full Size Toggle Switches
(Panel Mount) *Volume Pricing*

- Mounting hole diameter: 1/2"
- Medium duty toggle switches (current range to 6 amp)
- Keyed plate indicates switch position
- Full-size round lever
- Weight: .05 lbs.

Figure 1   Figure 2

Part No.	Product No.	Figure	Type/Description	Dimensions (LxWxD)	Contact Rating	Lead Type	Lever Type	1-9	10-99	100-249	250-499
76241	SWM128	1	SPST on-off with on/off plate	1.00 x .56 x .52	4A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	$1.09	$.89	$.69	$.55
76259	SWM126	1	DPDT on-on with on/on plate	1.12 x .77 x .60	5A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.09	.89	.69	.49
76232	SWM125	2	SPST on-off with on/off plate	1.00 x .53 x .51	6A @ 125VAC & 3A @ 250VAC	6" lead wire	Round	1.09	.89	.69	.55

Miniature Toggle Switches

- Metal construction
- Pre-tinned leads
- SPST, SPDT and DPDT
- ( ) momentary
- Includes mounting hardware
- Wide selection of leads, levers, and contact ratings
- Mounting hole diameter: 1/4"
- Some include non-rotation ring
- Mounting styles: panel mount, PC right angle horizontal and vertical mount
- Weight: .02 lbs.

Figure 3   Figure 4   Figure 5   Figure 6

Part No.	Product No.	Figure	Type	Description	Dimensions (in.)	Contact Rating	Lead Type	Lever Type	1-9	10-99	100-249	250-499
76523	JMT113★	3	SPST on-off	Panel mount	.52 x .32 x .38	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	$1.09	$.89	$.69	$.49
21936	JMT123★	3	SPDT on-on	Panel mount	.52 x .32 x .38	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.09	.89	.69	.55
21910	JMT121★	3	SPDT on-off-on	Panel mount	.49 x .29 x .40	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.09	.89	.69	.55
22832	LFH123	3	SPDT on-on	Panel mount	.52 x .28 x .36	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Flat	1.49	1.25	.99	.79
75854	SWM132	3	SPDT on-on	Panel mount	.52 x .32 x .37	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.15	.95	.75	.55
75889	SWM129	3	SPDT (on)-off-(on)	Panel mount	.52 x .32 x .37	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.15	.95	.75	.49
26331	MPC123	3	SPDT on-on	PC mount	.49 x .29 x .42	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.15	.95	.75	.55
26315	MPC121	4	SPDT on-off-on	PC mount	.49 x .30 x .42	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.15	.95	.75	.55
75862	SWM141	3	SPDT on-on	PC mount	.38 x .32 x .38	6A @ 125VAC & 3A @ 250VAC	PC	Round	1.09	.89	.59	.49
71597	SWS503	6	SPDT on-on	Vert. mount	.52 x .32 x .39	5A @ 125VAC & 2A @ 250VAC	PC right angle	Round	1.09	.89	.69	.55
75871	SWM145	5	SPDT on-on	Horiz. mount	.32 x .52 x .32	6A @ 125VAC & 3A @ 250VAC	PC right angle	Round	1.09	.89	.69	.49
22841	LFH221	3	DPDT on-off-on	Panel mount	.50 x .46 x .35	3A @ 125VAC & 1A @ 250VAC	Solder lugs	Flat	1.25	.99	.79	.65
21979	JMT223★	3	DPDT on-on	Panel mount	.52 x .50 x .38	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.25	.99	.79	.65
22859	LFH223	3	DPDT on-on	Panel mount	.50 x .46 x .40	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Flat	1.25	.99	.79	.65
105814	SWA208	3	DPDT on-(on)	Panel mount	.50 x .46 x .41	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.15	.95	.59	.49
75900	SWM133	3	DPDT on-on	Panel mount	.52 x .51 x .44	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.09	.89	.69	.49
21952	JMT221★	3	DPDT on-off-on	Panel mount	.52 x .51 x .38	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.09	.89	.69	.55
75951	SWM130	3	DPDT (on)-off-(on)	Panel mount	.52 x .51 x .42	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.25	.99	.79	.65
26366	MPC223	3	DPDT on-on	PC mount	.50 x .52 x .38	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.25	.99	.79	.65
26358	MPC221	3	DPDT on-off-on	PC mount	.49 x .46 x .41	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.25	.99	.79	.65

Subminiature Toggle Switches

- Mounting hole diameter: 7/32"
- Metal construction
- Includes mounting hardware
- Pre-tinned leads
- Weight: .01 lbs.

FTP   Figure 7   Figure 8   Figure 9

Part No.	Product No.	Figure	Type	Description	Dimensions (L" x W" x D")	Contact Rating	Lead Type	Lever Type	1-9	10-99	100-249	250-499
106067	SWP124	7	SPDT on-on	PC right angle	.25 x .33 x .34	.03A @ 5VDC	PC right angle	Round	$1.39	$1.15	$.75	$.69
72160	SW1501★	8	SPST on-off	Panel mount	.33 x .20 x .33	1.5A @ 250VAC	Solder lugs	Round	1.09	.89	.69	.55
75969	SWM136	8	SPDT on-on	Panel mount	.33 x .20 x .33	3A @ 250VAC	Solder lugs	Round	1.09	.89	.69	.49
72557	SW1502	8	SPDT on-off-on	Panel mount	.33 x .20 x .33	1.5A @ 250VAC	Solder lugs	Round	1.25	.99	.75	.65
138907	SW1503	8	DPDT on-off-on	Panel mount	.36 x .33 x .33	3A @ 120VAC	Solder lugs	Round	1.75	1.49	1.25	1.09
75977	SWM137	9	DPDT on-on	Panel mount	.33 x .36 x .33	1.5A @ 250VAC	Solder lugs	Round	1.25	.99	.79	.65

Push Button Switches

- Alt = alternate action
- n.c. = normally closed
- n.o. = normally open
- ( ) momentary   • Weight: .01 lbs.
- P/N 95177: Quick connect/solder/fast-on right angle leads

Figure 10   Figure 11   Figure 12   Figure 13   Figure 14   Figure 15   Figure 16   Figure 17   Figure 18   Figure 19

Part Number	Product Number	Figure	Mounting Hole Diameter	Type	Dimensions (L" x W" x D")	Contact Rating	Lead Type	Description	1-9	10-99	100-249	250-499
71642	SWB210	10	7/32"	SPST n.o. (n.c.)	.25 x .32 x .36	1A @ 120VAC	PC, right angle	Black button	$1.49	$1.25	$.99	$.75
26622	MS102★	11	1/4"	SPST n.o. (n.c.)	.57 (A) x 1.04 (B)	3A @ 125VAC	Solder	Red button	.45	.35	.31	.27
26649	MS103★	11	1/4"	SPST n.c. (n.o.)	.57 (A) x 1.04 (B)	3A @ 125VAC	Solder	Black button	.49	.35	.35	.32
121304	CK8121	12	1/4"	SPDT on-(on)	.50 x .27 x .40	1A @ 120VAC	Solder	White button	3.25	2.75	2.25	1.95
28062	PB126	12	1/4"	SPDT on-(on)	.51 x .28 x .43	5A @ 120VAC	Solder	Red button	3.49	2.95	2.49	2.25
106112	MS333	15	5/8"	SPST n.o. (n.c.)	.63 (L) x .66 (Dia)	3A @ 110VAC	Solder Tab	Red button	.85	.69	.59	.49
119790	CK8168	19	—	SPST n.o. (n.c.)	.51 x .26 x .42	6A @ 120VAC	PC, right angle	White button			Closeout	.19
95177	J3071	13	3/8"	SPST on-off, Alt	.50 x .47 x .40	2A @ 14VDC	Solder, right angle	White button	.95	.75	.65	.55
22200	J1881	14	3/8"	SPST on-off, Alt	.65 x .52 x .28	2A @ 14VDC	Pigtail	White button	1.09	.89	.69	.55
22218	J1882	14	3/8"	SPST n.o. (n.c.)	.65 x .52 x .28	2A @ 14VDC	Pigtail	Red button	1.09	.89	.69	.55
137189	PBS103	16	—	SPST n.o. (n.c.)	.47 x .47 x .16	50mA @ 12VDC	PC, pre-formed leads	Button switch	.45	.35	.31	.27
101012	PBS100	16	—	SPST n.o. (n.c.)	.47 x .47 x .16	20mA @ 15VDC	PC	Recessed button	.29	.22	.19	.12
122972	PBS101	16	—	SPST n.o. (n.c.)	.47 x .47 x .17	20mA @ 15VDC	PC, pre-formed leads	Recessed button	.45	.35	.31	.22
119010	KTIIBICM★	16	—	SPST n.o. (n.c.)	.24 x .24 x .16	20mA @ 15VDC	PC, pre-formed leads	Button switch	.19	.15	.12	.09
112361	B3J1000	17	—	SPST n.o. (n.c.)	.70 x .47 x .35	50mA @ 24VDC	PC	White button			Closeout	1.25
115086	KIE22	18	—	SPST n.o. (n.c.)	.24 x .24 x .22	20mA @ 15VDC	PC	Button switch	.25	.19	.15	.09

Slide Switches

- UL approved
- Metal housing
- Black nylon actuator
- Phenolic insulated
- Two mounting flanges
- Top actuation
- Weight: .01 lbs.

106075   109170   138894   138886

Part Number	Product Number	Type	Description	Contact Rating	Lead Type	Dimensions (L" x W" x D")	Length of Leads	Height of Actuator	1-9	10-99	100-499	500-999
106075	TSS11	SPDT on-off-on	PC right angle	.03A @ 5VDC	SIP .1"	.21 x .40 x .40	.15"	.10"	$.59	$.45	$.25	$.22
109170	SW153	SPDT on-on	PC mount	0.5A @ 50VDC	Solder pins	.22 x .45 x .23	.17"	.15"	.35	.29	.25	.22
138894	SW151	DPDT on-on	PC right angle	0.5A @ 50VDC	DIP .1"	.30 x .65 x .30	.28"	.27"	.35	.29	.25	.22
138886	SW141	SPDT on-on	PC panel mount	0.5A @ 125VDC	Solder pins	.29 x .88 x .54	.38"	.39"	.45	.39	.35	.29

We carry major manufacturers – call for large OEM pricing.

DIP Relays

106462   142594   138464   129875   136531   99872

Fig. 1   Fig. 2
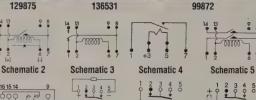
- Logic control levels • Moisture resistant
- Compatible with IC sockets
- Long life with reliable operation
- Compact design/construction
- Excellent for PCB applications
- Weight: .02 lbs.

Schematic 1   Schematic 2   Schematic 3   Schematic 4   Schematic 5

Fig. 3   Fig. 4

Aromat   CPClare   SIEMENS
Potter & Brumfield   EGC

Schematic 6   Schematic 7   Schematic 8   Schematic 9   Schematic 10   Schematic 11   Schematic 12

* Latching type

Note: All relay schematics are shown from top view except for Schem. 8, 9 and 10 which are bottom view

Part Number	Product Number	Manufacturer	Contact Form	Coil Voltage	Coil Resistance	Contact Schem.	Contact Voltage	Contact Current	Pin Count	Jameco Socket	Fig.	Package L x W x H (in.)	Leads A x B x C (in.)	1-9	10-49	50-99	100+
106462	201A05★	Excel Cell Electronics	SPST	5VDC	500Ω	1	100VDC	1A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	$2.25	$1.95	$1.69	$1.49
138430	2D1A05	Excel Cell Electronics	SPST	5VDC	500Ω	2	100VDC	1A	8	37161	3	.77 x .30 x .22	.10 x .40 x .35	2.25	1.95	1.69	1.49
138421	201C12	Excel Cell Electronics	SPDT	12VDC	500Ω	3	100VDC	.5A	8	37161	3	.77 x .30 x .20	.10 x .40 x .30	3.95	3.49	3.15	2.85
142594	JWS-117-3	Potter & Brumfield	SPST	12VDC	530Ω	4	20VDC	.5A	4	78641	4	.80 x .26 x .31	.18 x .61 x —	2.25	1.95	1.69	1.25
106471	201A12	Excel Cell Electronics	SPST	12VDC	1000Ω	1	100VDC	1A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	2.25	1.95	1.69	1.49
138448	2D1A12	Excel Cell Electronics	SPST	12VDC	1000Ω	2	100VDC	1A	8	37161	3	.77 x .30 x .22	.10 x .40 x .35	2.25	1.95	1.69	1.49
138472	201A24	Excel Cell Electronics	SPST	24VDC	2150Ω	1	100VDC	1A	8	37161	3	.77 x .30 x .20	.10 x .40 x .30	1.95	1.75	1.49	1.19
138456	202A05	Excel Cell Electronics	DPST	5VDC	140Ω	5	100VDC	1A	8	37161	3	.77 x .30 x .28	.10 x .40 x .30	2.95	2.65	2.39	2.15
138464	202A12	Excel Cell Electronics	DPST	12VDC	500Ω	5	100VDC	1A	8	37161	3	.77 x .30 x .28	.10 x .40 x .30	3.95	3.49	3.15	2.85
99346	47SB05T	PED	DPDT	5VDC	36Ω	6	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .45	.20 x .40 x .30	2.25	1.95	1.69	1.49
129875	DS2EMDC5VC	Aromat	DPDT	5VDC	62.5Ω	6	125VAC/30VDC	.6A/1A	8	37372	1	.79 x .40 x .39	.20 x .40 x .39	3.95	3.49	3.15	2.49
115060	DS2EMDC5V	Aromat	DPDT	5VDC	62.5Ω	6	125VAC/30VDC	.6A/2A	8	37372	1	.79 x .40 x .39	.20 x .40 x .30	4.75	4.25	3.75	3.25
18593	HB25★	Aromat	DPDT	5VDC	43.4Ω	7	125VAC/30VDC	1A/2A	8	37372	1	.79 x .43 x .63	.10 x .20 x .30	5.49	4.95	4.49	3.95
99338	LM12C00	GI Clare	DPDT	6VDC	71Ω	6	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.25	1.95	1.49
99311	DS2Y-S-DC12V	Aromat (NAIS)	DPDT	12VDC	720Ω	6	110VAC/30VDC	.3A/1A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	4.95	4.49	3.95	3.49
99901	V23042-A2003	Siemens	DPDT	12VDC	600Ω	6	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .30	.20 x .40 x .30	4.95	4.49	3.95	2.95
18577	HB212★	Aromat	DPDT	12VDC	250Ω	7	125VAC/30VDC	.5A/1A	8	37372	1	.79 x .44 x .60	.10 x .20 x .30	4.75	4.25	3.75	2.75
99320	LM12E00	GI Clare	DPDT	24VDC	1110Ω	6	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.25	1.95	1.69	1.49
139977	RSB5S	Shin Mei	DPDT	5VDC	125Ω	6	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .42 x .31	2.95	2.65	2.39	2.15
140290	TQ2-L2-5V	Aromat*	DPDT	5VDC	125Ω	8	125VAC/30VDC	.5A/1A	10	—	1	.55 x .35 x .20	.10 x .20 x .30	4.49	3.95	3.49	2.95
140281	TQ2E5V	Aromat	DPDT	5VDC	178Ω	9	125VAC/30VDC	.5A/1A	10	—	1	.55 x .35 x .20	.10 x .20 x .30	3.95	3.49	2.95	2.69
140302	TQ2E12V	Aromat	DPDT	12VDC	1028Ω	9	125VAC/30VDC	.5A/1A	10	—	1	.55 x .35 x .20	.10 x .20 x .30	3.95	3.49	2.95	2.69
140311	DS2Y-S-DC24V	Aromat	DPDT	24VDC	2880Ω	6	125VAC/30VDC	.3A/1A	8	37372	1	.79 x .40 x .37	10 x .30 x .30	3.49	2.95	2.75	2.49
139969	RSB24S	Shin Mei	DPDT	24VDC	2880Ω	6	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .42 x .31	2.95	2.65	2.39	2.15
140329	TF2-5V	Aromat	DPDT	5VDC	313Ω	10	125VAC/30VDC	.5A/1A	10	37161	1	.55 x .35 x .31	.10 x .10 x .30	4.49	3.95	3.49	2.95
140345	TX2-5V	Aromat	DPDT	5VDC	178Ω	11	125VAC/30VDC	.5A/1A	8	—	1	.59 x .29 x .32	.10 x .20 x .20	3.25	2.75	2.49	2.25
140337	TX-12V	Aromat	DPDT	12VDC	1028Ω	11	125VAC/30VDC	.5A/1A	8	—	1	.59 x .29 x .32	.10 x .20 x .20	3.25	2.75	2.49	2.25
136549	DS4EM-DC5VC	Aromat	4PDT	5VDC	62.5Ω	12	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .20	3.95	3.49	3.15	2.49
136531	T84S17D414-05	Potter & Brumfield	4PDT	5VDC	64.9Ω	12	120VAC/24VDC	.5A/1A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	3.95	3.49	3.15	2.49
99872	G6A-434P-ST-US	Omron	4PDT	5VDC	69Ω	12	110VAC/24VDC	.3A/1A	14	112299	2	1.39 x .39 x .30	.20 x .30 x .30	4.95	4.49	3.95	2.95

Solid State Relays

127790 (Fig. 1)   139053 (Fig. 2)   105081 (Fig. 3)   128952 (Fig. 4)

Control Voltage — OPTO ISOLATED CONTROL — DETECTION/CONTROL CIRCUIT — Load / or / Load — AC LINE
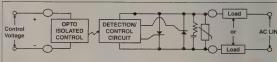
128952 Electrical Schematic

- Screw terminal with hardware (except P/N 127790) • Photo isolation • Metal mounting base
- Non-mechanical for reliability • Fit most Jameco screw terminal and slide on style sockets • Weight: 0.2 lbs.

Typical applications include input/output modules, solenoid driver, motor, blower, heater and temperature controls, control of relays, switching fans, TTL-compatible driver for contactors and replacing TRIAC/TRIAC drivers. All versions feature optical-isolation and normally open contacts, as well as DC/AC control switching. TTL- and CMOS-compatible, these units provide interface between logic and power systems, high transient immunity, high surge capability and they save PC board space. Typical applications require the use of heat sinks for these devices – see page 22 for heat sinks.

Part Number	Product Number	Manufacturer	Control Voltage	Type	Contact Voltage	Contact Current	Pins	Fig.	Terminal Type	Agency Approval	L x W x H (in.)	Contact Style	1-4	5-9	10-24	25-99
127790	D2W202F	Crydom	3-28VDC	DC/AC	240VAC	2A	4	1	Solder Lead	—	1.7 x 0.4 x 1.3	SPST	$8.95	$7.95	$7.25	$6.49
139053	D2425	Crydom	3-32VDC	DC/AC	240VAC	25A	4	2	Screw Terminal	UL/CSA	2.3 x 1.7 x 1.0	SPST	19.95	17.95	15.95	14.49
138940	D2440	Crydom	3-32VDC	DC/AC	240VAC	40A	4	2	Screw Terminal	UL/CSA	2.3 x 1.7 x 1.0	SPST	24.95	22.49	19.95	17.95
105081	615-8500	Teledyne	3-32VDC	DC/AC	250VAC	10A	4	3	Screw Terminal	UL/CSA	2.3 x 1.8 x 1.0	SPST	16.95	14.95	13.49	11.95
128944	T240D10	Gentron	3-32VDC	DC/AC	240VAC	10A	4	4	Screw Terminal	UL/CUL	2.3 x 1.8 x 1.0	SPST	17.95	15.95	14.49	12.95
128952	S240D25	Gentron	3-32VDC	DC/AC	240VAC	25A	4	4	Screw Terminal	UL/CUL	2.3 x 1.8 x 1.0	SPST	29.95	26.95	24.95	22.95
128961	S240D55	Gentron	3-32VDC	DC/AC	240VAC	55A	4	4	Screw Terminal	UL/CUL	2.3 x 1.8 x 1.0	SPST	29.95	26.95	24.95	22.95

T90 Series

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and heating, ventilating and air conditioning markets, they are also well suited for automotive load management and other applications.

- Electrical life expectancy is 100,000 operations at rated loads
- PC board terminals • UL class F insulation standard
- Mechanical life expectancy is 10 million operations
- Dielectric strength: 1,500Vrms (between contact and coil)
- Weight: .06 lbs.
- Operating temperature:
  134931/134949: -40°C to +85°C; **104926/129349:** -40°C to +125°C
- **104926:** Open frame relay • **129349:** Immersion cleanable, plastic sealed case • **144186:** For use with universal relay card (P/N 128910 – pg 70)

Part Number	Product Number	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	Terminal Type	L x W x H (In.)	Style	1-9	10-49	50-99	100+
134949	T9055012-5	5VDC	27	240VAC/28VDC	30A	6	PCB Solder	1.3 x 1.1 x .80	SPDT	$2.95	$2.49	$1.95	$1.75
104926	T90N5D12	12VDC	155	240VAC/28VDC	30A/20A	6	PCB Solder	1.2 x .90 x .63	SPDT	2.95	2.49	1.95	1.75
129349	T9055D12-12	12VDC	155	277VAC/28VDC	20A/10A	6	PCB Solder	1.2 x 1.0 x .75	SPDT	3.25	2.75	2.25	1.95
145752	T9051D12-12	12VDC	155	240VAC	30A	5	PCB Solder	1.2 x 1.0 x .77	SPST	2.95	2.49	2.25	1.65
134931	T9055D12-24	24VDC	660	240VAC/28VDC	30A	6	PCB Solder	1.3 x 1.1 x .80	SPDT			Closeout	1.49
144186	VR15M121C	12VDC	337	120VAC/28VDC	15A	5	PCB Solder	0.8 x .64 x .80	SPDT	4.75	4.25	3.75	3.25

Plastic Enclosed Construction

- Dielectric strength: 500VDC (between contact and coil)
- Operating temperature: -35°C to +85°C • SPST
- Normally open (NO), normally closed (NC)
- Weight: .01 lbs.
- **29575** standard lead length .142"
- **117946** cut leads .100"

Part Number	Product Number	Manufacturer	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	Terminal Type	L x W x H (In.)	Style	1-9	10-49	50-99	100+
111448	RC108T	Han Kuk	12VDC	550	250VAC/150VDC	0.1A	4	PCB Solder	1.0 x .37 x .38	SPST(NO)	$.59	$.45	$.35	$.25
134965	R4422-2	Electrol	12VDC	440	250VDC	1.0A	6	PCB Solder	1.0 x .35 x .25	DPST(NO)	.99	.79	.65	.45
29575	RRJ10317	Standex*	12VDC	730	250VAC/150VDC	0.1A	4	PCB Solder	1.1 x .47 x .36	SPST(NC)	.99	.79	.65	.49
117946	RRJ10317CL	Standex**	12VDC	730	250VAC/150VDC	0.1A	4	PCB Solder	1.1 x .47 x .36	SPST(NC)	.49	.35	.25	.15

T9A Series

Low Cost 30 Amp PC Board or Panel Mount Only

FTP

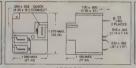- Mechanical life expectancy is 10 million operations
- Weight: 0.1 lbs.
- **137349:** • Operating temperature: -40°C to +70°C
- Dielectric strength: 1200VAC (between open contacts)
- **137365/137357:** • Operating temperature: -55°C to +85°C
- Dielectric strength: 1500VAC (between open contacts)

Part Number	Potter & Brumfield Equivalent	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	Terminal Type	L x W x H (In.)	Style	1-9	10-49	50-99	100+
137349	T9AP1D52-12	12VDC	120	250VAC/28VDC	30A	4	.25" disconnect(2) .187" disconnect(2)	2.0 x 1.25 x 1.25	SPST(NO)	$4.49	$3.95	$3.49	$3.19
137365	T9AS5D22-12	12VDC	155	240VAC/28VDC	NO: 20A NC: 10A	5	PCB Solder (5) .25" disconnect(3)	1.25 x 1.0 x 1.25	SPDT	2.49	2.25	1.95	1.75
137357	T9AS5D52-12	12VDC	155	240VAC/28VDC	NO: 20A NC: 10A	5	Solderless Quick Connect	2.0 x 1.16 x 1.8	SPDT	2.95	2.49	2.25	1.95

General Purpose Relays

Reduced Pricing

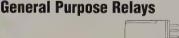### Pin Type Terminals – Series 250

- Contact voltage: 120/240VAC, 28VDC @ 10 Amp
- Plug-in mounting with see-through dust covers
- High dielectric strength • AC or DC operated coils • Ambient temperature operating: -10°C to +50°C • Weight: 0.1 lbs.

Part No.	Product No.	NTE Cross Reference	Coil (voltage)	Coil (Ohms)	Pins	Terminal Type	L x W x H (In.)	Style	1-9	10-24	25-49
139766	W250CPX6	R02-11D10-12	12VDC	120Ω	8	Pin type	1.4 x 1.4 x 2.7	DPDT	$8.49	$7.59	$6.79
139782	W250CPX10	R02-14D10-12	12VDC	120Ω	11	Pin type	1.4 x 1.4 x 2.7	3PDT	9.49	8.49	7.59
139774	W250CPX7	R02-11D10-24	24VDC	470Ω	8	Pin type	1.4 x 1.4 x 2.7	DPDT	7.95	7.15	6.49
139731	W250ACPX8	R02-11A10-24	24VAC	85Ω	8	Pin type	1.4 x 1.4 x 2.7	DPDT	8.95	7.95	7.25
139740	W250ACPX9	R02-11A10-120	120VAC	1.9KΩ	8	Pin type	1.4 x 1.4 x 2.7	DPDT	8.95	7.95	7.25
139758	W250ACPX14	R02-14A10-120	120VAC	1.7KΩ	11	Pin type	1.4 x 1.4 x 2.7	3PDT	9.49	8.49	7.59

Quick Connect Blade Terminals – Series 388

Class 388 general purpose relays are an inexpensive high performing line of relays. Flat terminals (0.187" x 0.020") for standard plug-in mounting also accept quick-connect receptacles or direct soldering. • See page 46 for sockets
- Contact voltage: 120VAC/28VDC @13A/240VAC @ 10A • Ambient temperature operating: -30°C to +50°C • Weight: 0.1 lbs.

Part No.	Product No.	NTE Cross Reference	Coil (voltage)	Coil (Ohms)	Pins	Terminal Type	L x W x H (In.)	Style	1-9	10-24	25-49
139846	W388CPX10	R10-14D10-12	12VDC	120Ω	11	Quick connect	1.5 x 1.4 x 2.2	3PDT	$8.95	$7.95	$7.25
139862	W388CPX7	R10-11D10-24	24VDC	460Ω	8	Quick connect	1.5 x 1.4 x 2.2	DPDT	7.95	7.25	6.49
139854	W388CPX11	R10-14D10-24	24VDC	470Ω	11	Quick connect	1.5 x 1.4 x 2.2	3PDT	8.95	7.95	7.25
139820	W388ACPX13	R10-14A10-24	24VAC	70Ω	11	Quick connect	1.5 x 1.4 x 2.2	3PDT	8.95	7.95	7.25
139838	W388ACPX14	R10-14A10-120	120VAC	2.13KΩ	11	Quick connect	1.5 x 1.4 x 2.2	3PDT	8.95	7.95	7.25

Solder Tail .2" Terminal Connectors

- Easy and fast way to do wire connections
- Blocks are expandable by snapping connectors together
- Materials: housing – polyamide, green lever – polyamide yellow solder pin – brass, 0.5', tin plated **141743**
- Clamping: push release, can be used with vertical or right angle wire insertion
- Standard pin spacing: 0.2"ctr., can be expanded up to 0.4" • UL/CSA approved
- Recommended wire thickness: 14-16 AWG
- Pitch: 5.08mm (0.2") • Rated voltage: 300V @ 10A
- Pin dimension: 0.12"L x 0.04"W
- Size: 0.9"L x 0.5"W x 0.4"H • Weight: .01 lbs.

Part No.	Description	1-9	10-99	100+
141727	2 position solder tail....	$.49	$.45	$.39
141735	3 position solder tail.....	.79	.69	.59
141743	4 position solder tail.....	.99	.89	.79

HARWIN M80 Series .079" Vertical PC Tail Male Connectors

Recommended PC Board Pattern
Single Row
Strain relief strap holes (optional)
0.90 min.

142527

Part No.	Position	A	B
142501	2	7.6	2.0
142519	3	9.6	4.0
142527	4	11.6	6.0
146253	7	17.6	12.0
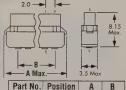
Friction lock or latch (when fitted) adds 0.5mm to overall length B

- Gold/tin latched • Polarized moldings
- Fully shrouded contacts • 2mm (.079") pin spacing
- Gold plating on contact area, tin/lead on tails
- Contact rating: 3.3A @ 25°C; 120V max. working voltage • Weight: .001 lbs.

Part No.	Description	1-9	10-99	100+
142501	2 pos., latched male ..	$1.29	$1.19	$1.09
142519	3 pos., latched male	1.39	1.29	1.19
142527	4 pos., latched male	1.49	1.39	1.29
146253	7 pos., latched male	1.69	1.55	1.39

HARWIN M80 Series .079" Crimp Tail Female Connectors

142498

Part No.	Position	A	B
142471	2	7.3	2.0
142480	3	9.3	4.0
142498	4	11.3	6.0
146261	7	17.3	12.0

- Polarized moldings
- Fully shrouded contacts
- Contacts are rear insertable
- Contact rating: 3.3A @ 25°C; 120V max. working voltage
- Crimp barrel size: 24-28 AWG wire • Wt.: .001 lbs.

Part No.	Description	1-9	10-99	100+
142471	2 pos., crimp tail female	$1.09	$.99	$.89
142480	3 pos., crimp tail female..	1.29	1.19	1.09
142498	4 pos., crimp tail female..	1.59	1.49	1.39
146261	7 pos., crimp tail female..	2.39	2.19	1.95

Free HARWIN
Interconnect Cross-Reference CD-ROM available upon request!

(molex) .093" Power Connector Plug, Receptacle and Pin Asst. Kits

These assortment kits contain mating sets of housings and pins. All kits include male and female tin plated standard brass .010" pins; 18-22 AWG crimp size wire. For quantity see table below.

Features and Benefits
- Passive (friction) lock
- Panel and PCB mountable
- Male and female terminals may be used in either plug or receptacle housing

Physical
- Housing: nylon, UL94V-2
- Temperature: -40°C to +105°C
- Weight: .05 lbs.

Standard .093" Terminal
Female / Male
Plug / Receptacle

Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5 Fig. 6

Part Number	Connector Type	Qty.	Fig.	Maximum		Dimensions (In.)			Panel Cutout		Pin Qty.	Pricing		
				Amp.	Voltage	A	B	C	D	E		1-9	10-99	100+
142172	Receptacle	5	1	12	250	—	.230	1.030	—	—	7	$2.95	$2.75	$2.49
	Plug	5	1	12	250	—	.360	1.000	—	—	7			
142181	Receptacle	3	2	12	250	.540	.250	1.030	.725	.312	8	2.95	2.75	2.49
	Plug	3	2	12	250	.640	.350	1.000	.800	.375	8			
142199	Receptacle	3	3	12	250	.670	.240	1.010	.830	.312	11	3.95	3.49	2.95
	Plug	3	3	12	250	.770	.340	1.000	.933	.375	11			
142201	Receptacle	2	4	9	250	.870	.240	1.030	1.038	.312	10	3.49	3.25	2.95
	Plug	2	4	9	250	.970	.340	1.000	1.131	.375	10			
142210	Receptacle	2	5	9	250	1.070	.240	1.000	—	—	12	3.95	3.49	2.95
	Plug	2	5	9	250	1.180	.340	1.000	—	—	12			
142228	Receptacle	2	6	9	250	.430	.630	1.020	.678	.600	14	3.95	3.49	2.95
	Plug	2	6	9	250	.540	.730	1.000	.750	.695	14			

(molex) .062" Power Connector Plug, Receptacle and Pin Asst. Kits

These assortment kits contain mating sets of housings and pins. All kits include male and female tin plated standard brass .008" pins; 18-24 AWG crimp size wire (insulation diameter .060"/.120"). For quantity see table below.

Features and Benefits
- Friction lock
- Panel and PCB mountable
- Polarized housing assures proper mating
- Male and female terminals may be used in both plug and receptacle housing

Standard Crimp Terminal
Male / Female
Plug / Receptacle

Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5 Fig. 6

Electrical • Voltage: 250V • Current: 5.0A • Dielectric withstanding voltage: 1500VAC rms
Physical • Housing: nylon, UL94V-2 • Temperature: -40°C to +105°C • Weight: .03 lbs.

Part Number	Connector Type	Qty.	Fig.	Maximum		Dimensions (In.)			Panel Cutout		Pin Qty.	Pricing		
				Amp.	Voltage	A	B	C	D	E		1-9	10-99	100+
142105	Receptacle	5	1	5	250	.190	—	.780	—	—	7	$3.95	$3.49	$2.95
	Plug	5	1	5	250	.300	—	.750	—	—	7			
142113	Receptacle	3	2	5	250	.340	.190	.810	.505	.265	8	3.95	3.49	2.95
	Plug	3	2	5	250	.440	.300	.780	.609	.318	8			
142121	Receptacle	3	3	5	250	.480	.190	.780	.650	.265	11	4.95	4.49	3.95
	Plug	3	3	5	250	.590	.300	.750	.754	.318	11			
142130	Receptacle	2	4	5	250	.630	.190	.780	.785	.260	10	5.95	5.49	4.95
	Plug	2	4	5	250	.730	.290	.750	.865	.312	10			
142164	Receptacle	2	5	5	250	.780	.190	.780	.940	.265	12	5.95	5.49	4.95
	Plug	2	5	5	250	.890	.310	.750	1.044	.318	12			
142148	Receptacle	2	6	5	250	.340	.490	.780	.552	.505	14	5.95	5.49	4.95
	Plug	2	6	5	250	.450	.600	.750	.615	.607	14			

(molex) Terminal Extraction Tools
For .093" and .062" contacts (above)

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-99	100+
142236	WHT2038	Extraction tool for .093" pin and socket	.08	$14.95	$13.49	$11.95
142156	WHT2285	Extraction tool for .062" pin and socket	.08	14.95	13.49	11.95

JAMECO **$1.39** Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
OEM Pricing Available!

We carry major manufacturers – call for pricing on quantities over 1000.

Solder Tail Low Profile Tin Plated IC Sockets

- Contact plating: tin
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Tin-plated tails
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Lead length: .125"
- Body height: .156"
- Weight: .01 lbs.

Special 1,000 pcs. Sale – CALL

single wipe   dual wipe

Low Profile – Single Wipe – Tin Plated

Part No.	Product No.	Pins	Width (in.)	1-9	10-99	100-999
51570	8LP★	8	0.3	$.10	$.06	$.05
37161	14LP★	14	0.3	.10	.06	.05
37372	16LP★	16	0.3	.12	.07	.04
111456	16LP33†	16	0.3	.09	.05	.03
38113	18LP★	18	0.3	.13	.08	.04
38607	20LP★	20	0.3	.16	.09	.07
39132	22LP	22	0.4	.10	.06	.03
39335	24LP★	24	0.6	.17	.10	.06
39378	24SLP	24	0.3	.25	.19	.10
40301	28LP★	28	0.6	.19	.11	.09
77702	32LP	32	0.6	.19	.11	.09
41110	40LP★	40	0.6	.22	.15	.10

† with 0.33 µfd decoupling capacitor

Low Profile – Dual Wipe – Tin Plated

Part No.	Product No.	Pins	Width (in.)	1-9	10-99	100-999
112192	6LPD★	6	0.3	$.12	$.07	$.05
112205	8LPD★	8	0.3	.12	.07	.05
112213	14LPD★	14	0.3	.12	.07	.05
112221	16LPD★	16	0.3	.13	.08	.06
112230	18LPD	18	0.3	.17	.10	.08
112248	20LPD	20	0.3	.17	.10	.08
112264	24LPD	24	0.6	.19	.11	.07
112281	24SLPD	24	0.3	.29	.22	.15
112272	28LPD	28	0.6	.22	.15	.10
112299	28SLPD	28	0.3	.45	.35	.25
112301	32LPD	32	0.6	.22	.15	.10
112310	40LPD	40	0.6	.22	.15	.10

Solder Tail Standard Gold Plated IC Sockets

- Material: phosphor bronze
- Contact plating: gold (dual wipe)
- Voltage rating: 250Vrms
- Contact current : 1A
- Temperature range: -65°C to +125°C
- Contact resistance: 10mΩ - 30mΩ max.
- Dielectric withstanding voltage: 500Vrms
- Insulation resistance: >5000MΩ
- Insulator: glass-filled polyester, black, UL 94V-0
- Lead length: .125" • Body height: . 281"
- Weight: .01 lbs.

37428

Part No.	Product No.	Pins	Width (in.)	1-9	10-99	100-499
51633	8SG	8	0.3	$.79	$.65	$.55
37209	14SG	14	0.3	.99	.79	.69
37428	16SG	16	0.3	1.09	.89	.79
38640	20SG	20	0.3	1.29	1.09	.95
41152	40SG	40	0.6		Closeout	.79

Standard Wire Wrap (2 level) Gold and Tin Plated IC Sockets

- Contact plating: gold (WW) or tin (TWW) dual wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Lead length: .438"
- Sleeve material: brass • Body height: .281"
- TWW = tin plated • WW = gold plated • Wt.: .01 lbs.

37233

Part No.	Product No.	Pins	Width (in.)	1-9	10-99	100-499
51641	8WW★	8	0.3	$.85	$.65	$.55
112660	8TWW	8	0.3	.59	.45	.35
37233	14WW★	14	0.3	.99	.79	.69
37217	14TWW★	14	0.3	.75	.59	.49
37479	16WW★	16	0.3	1.09	.89	.79
37436	16TWW★	16	0.3	.75	.59	.49
38148	18WW	18	0.3	1.19	.99	.69
87636	18TWW	18	0.3	.85	.65	.55
38674	20WW★	20	0.3	1.35	1.15	.99
75379	20TWW	20	0.3	1.05	.85	.75
39394	24WW★	24	0.6	1.49	1.25	.99
75416	24TWW	24	0.6	1.09	.89	.79
40352	28WW★	28	0.6	1.75	1.49	1.25
75424	28TWW	28	0.6	1.19	.99	.89
41187	40WW★	40	0.6	2.25	1.95	1.75
41179	40TWW	40	0.6	1.39	1.19	1.05

Machine Tooled Wire Wrap (2 level) Gold Plated IC Sockets

- Contact plating: gold
- Contact current: 3A
- Tin plated leads
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Lead length: .438" • Body height: .125" • Wt.: .01 lbs.

37410

Part No.	Product No.	Pins	Width (in.)	1-9	10-99	100-499
94473	8MSWW	8	0.3	$.75	$.59	$.49
62050	14MSWW	14	0.3	.99	.79	.69
37410	16MSWW	16	0.3	1.05	.85	.79
94481	18MSWW	18	0.3	1.15	.99	.79
38631	20MSWW	20	0.3	1.35	1.15	.99
94490	24MSWW	24	0.6	1.75	1.49	1.15
105371	24SMSWW	24	0.3	1.75	1.35	1.15
40336	28MSWW	28	0.6	1.95	1.65	1.29
117057	32MSWW	32	0.6	2.09	1.79	1.39
94502	40MSWW	40	0.6	2.25	1.95	1.59

Card-Edge Connectors

- Fit all PC boards
- .054" to .070" thick
- Weight: .05 lbs.

40694

Solder Eyelet .140" Spacing Between Rows

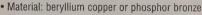| Part No.	Position	Contacts	Contact Centers	Mounting Ears	1-9	10-99	100-499
39116	22/44	Gold	.156	Yes	$2.25	$1.95	$1.35

Solder Tail .200" Spacing Between Rows

Part No.	Position	Contacts	Contact Centers	Mounting Ears	1-9	10-99	100-499
105363	18/36	Tin (AT)	.100	No	$.49	$.35	$.19
39108	22/44	Gold	.156	Yes	2.25	1.95	1.39
40694	31/62	Tin (PC/AT)	.100	No	1.29	1.09	.49
42091	49/98	Tin (AT)	.100	No	1.49	1.25	.85

Machine Tooled Low Profile Gold Plated IC Sockets

- Contact plating: gold
- Tin plated leads
- Contact current: 3A   65584
- Contact resistance: less than 5mΩ
- Material: beryllium copper or phosphor bronze
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Lead length: .188" • Body height: .125" • Wt.: .01 lbs.

OEM Pricing

Part No.	Product No.	Pins	Width (in.)	1-9	10-99	100-499	500+
51625	8MLP★	8	0.3	$.55	$.39	$.29	$.25
37196	14MLP★	14	0.3	.59	.45	.35	.29
37401	16MLP★	16	0.3	.65	.49	.39	.35
65584	18MLP★	18	0.3	.69	.55	.45	.39
38623	20MLP★	20	0.3	.85	.65	.55	.49
39351	24MLP★	24	0.6	.89	.69	.59	.45
39386	24SMLP	24	0.3	.89	.69	.59	.45
40328	28MLP★	28	0.6	.99	.79	.69	.55
114411	28SMLP	28	0.3	.95	.75	.45	.39
105380	32SMLP	32	0.6	1.09	.89	.55	.45
41136	40MLP★	40	0.6	1.19	.95	.75	.65
138157	40MLPT	40 (Tin)	0.6	.85	.65	.45	.39
42059	48MLP	48	0.6	1.19	.99	.65	.55

Terminal Blocks

- Materials:
  housing: polyimide;
  solder: brass tin plated
  wire protector:
  phosphor bronze;
  nickel plated
  screw: steel tin plated
- Color: green
- 2 and 3 terminal blocks
- Rated voltage: 300V @ 15A

99397   99434   110007

Fig. 1   Fig. 2   Fig. 3

PC Mount Terminal Blocks

Terminals are interlocking with like type (side, 45°)
- Superior elevator wire – clamp • Wt.: .01 lbs.
- Modular housings: END to END stackability
- High temperature housing withstands wave soldering

Side Entry

Part Number	Fig.	Terminals	Block Length (Inches)	Lead Spacing (Inches)	1-9	10-99	100-999
99426★	1	2	0.4	0.197	$.59	$.45	$.35
99397★	1	3	0.6	0.197	.89	.69	.59

45° Entry

Part Number	Fig.	Terminals	Block Length (Inches)	Lead Spacing (Inches)	1-9	10-99	100-999
99389	2	2	0.4	0.197	$.59	$.45	$.35
99434	2	3	0.6	0.197	.89	.69	.59

Terminal Block Plugs

- Pluggable header
- Shrouded header protects header pins
- High temperature housing withstands wave soldering

Part Number	Fig.	Terminals	Block Length (Inches)	Lead Spacing (Inches)	1-9	10-99	100-499
109997	3	2	0.4	0.2		Closeout	$.49
110007	3	3	0.6	0.2	1.49	1.25	.79

IDC Card-Edge Connector

Contact fingers on .100" centers
- Mates with double-sided 1/16" PC board
- Mass termination
- Gold contacts
- Current rating: 1 amp • Plastic • No soldering
- Use 73251 IDC crimping tool (pg 47) • Wt.: .03 lbs.

Part No.	Product No.	Contacts		Price
14875	C50	50	Closeout	$.69

RCA Jacks

100992   112475

- Precision shape guarantees firm contact
- Well anchored insulators prevent turning and wires pulling loose
- See page 126 for RCA cables
- Weight: .006 lbs.

Part No.	Description (Pkg.)	W x D x H (inches)	1-9	10-99	100-999
100992	RCA jack with breaking contacts	.75 x .73 x .56	Closeout		$.05
112475	RCA right angle PC mount jack	.42 x .57 x .48	.45	.35	.25

Standard and Mini DIN Male Plugs

w/ Strain Relief
- Solder barrels
- See page 51 for cable
- Weight: .02 lbs.

15886

Part No.	Product No.	Pins	Type	1-9	10-99	100-499
142279	4MDP	4	Mini	$.99	$.79	$.55
142261	6MDP	6	Mini	.99	.79	.55
111878	8MDP	8	Mini	.99	.79	.65
15878	DINP5	5	Standard	.45	.35	.25
15886	DINP6	6	Standard	.55	.39	.29
15894	DINP8	8	Standard	.59	.45	.35

Standard and Mini Female Sockets

- Metal body   - Panel mount
- Solder lugs   - Weight: .01 lbs.
- P/N 142877: Mini DIN socket PS2   15851

Part No.	Product No.	Socket	Type	1-9	10-99	100-499
142869	MDINJ4	4	Mini	$.75	$.59	$.45
142877	MDINJ6	6	Mini	.79	.65	.49
15843	DINJ5★	5	Standard	.59	.45	.35
15851	DINJ6	6	Standard	.75	.59	.45
15860	DINJ8	8	Standard	.85	.69	.55

Standard Right Angle DIN Female Sockets

- Plastic body   - Set back: 0.5"
- PC mount contacts   29399
- Weight: .01 lbs.

Part No.	Product No.	Socket	1-9	10-99	100-499
140791	749181	4 (mini)	$.69	$.55	$.32
29399	RD5	5	.69	.55	.39
119474	749265	6 (mini) PS/2	.69	.55	.35

PanaVise IDC Bench Press and Accessories

Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.

27174   27182

- Includes assembly base and standard platen
- Size: 10.0"W x 8.8"D x 9.0"H

Part Number	Product Number	Description	Wt. (lbs.)	Price
27174	M505	IDC bench press	7.0	$164.95

M505 Accessories

27182	M507	Flat ribbon cable cutter	0.9	$69.95
27203	M510	Connector base plate	0.5	29.95

.100" Straight Male Headers With Standard Latch

Double Row
- Gold-plated square pins
- Locking/ejecting ears
- 0.1" contact center   - Keying slot
- Mount vertical or horizontal
- Weight: .02 lbs.
- Use with IDC socket connectors (see right)

Part No.	Description	1-9	10-99	100-499
117663	10-pin	$.69	$.55	$.39
71503	14-pin	.75	.59	.32
71829	20-pin	.79	.65	.29
71933	26-pin	.85	.69	.45
72039	34-pin	.85	.69	.45
72135	40-pin	1.09	.89	.55
72215	50-pin	1.25	.99	.65

.156" Center Straight-Friction Lock Headers

- Ideal for AC and DC power distribution
- Voltage rating: 250VAC/VDC max.
- Current rating: 7 amps AC/DC
- Contact resistance: $20m\Omega$
- Temperature range: -25°C to +85°C
- Header material: pin: brass tin/plated
- Base: nylon 66, UL94V-2
- Weight: .01 lbs.   104811

Part No.	Product No.	Pins	1-9	10-99	100-499	500+
104782	LMH3	3	$.29	$.22	$.14	$.10
104791	LMH4	4	.35	.25	.17	.13
104803	LMH5	5	.39	.29	.17	.14
104811	LMH6	6	.45	.35	.25	.17
104846	LMH10	10	.55	.39	.29	.22

.156" Center Housings

- Common to many of the power supplies carried by Jameco. Some power supplies (pgs 64-68) may require multiple connectors
- Housing material: nylon 66, UL94V-2   - Weight: .01 lbs.
- Use with crimp pins (P/N 78318 – below)   104731

Part No.	Product No.	Pins	1-9	10-99	100-499	500+
104432	LCH3	3	$.22	$.17	$.12	$.06
104715	LCH4	4	.29	.22	.17	.10
104723	LCH5	5	.39	.29	.19	.12
104731	LCH6	6	.45	.35	.25	.15
104766	LCH10	10	.55	.39	.29	.15

The above .156" headers and housings can be used with many of our power supplies listed on pages 64–68.

.156" Center Crimp Pin

- Use 99442 crimping tool (below)
- Material: brass tin plate
- Pin wire gauge: 22-26 AWG
- Weight: .001 lbs.

Part No.	Product No.	Description	1-99	100-999	1000+
78318	AMP501T	Crimp pin	$.07	$.06	$.04

Jameco Crimping Tool

- For computer pins and sockets, D-sub: 28-26 AWG wire
- For butt-insulated connectors, telephone spade lugs: 26-22 AWG wire
- For non-insulated connectors: 22-20 AWG wire
- For non-insulated connectors: 18-14 AWG wire
- Size: 7.3"L x 1.5"W   - Weight: 0.5 lbs.

Part No.	Product No.	Description	1-9	10-24
99442	H202A	Crimping tool	$7.95	$7.25

.100" and 2mm IDC Socket Connectors

Double Row
- Mates with 2 rows of .025"Sq. or Dia. posts on patterns of .100" centers (male headers, see left and opposite page)   32563
- (100386): 2mm pin spacing; use P/N 100781 2mm ribbon cable (pg 51)   - Current rating: 1 amp
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C   - Weight: .02 lbs.
- Use P/N 73251 (pg 47), insulation displacement connection crimper for these connectors

Polarized IDC Socket Connectors

Part No.	Product No.	Contacts	1-9	10	100	500+
32491	S10★	10	$.45	$.35	$.25	$.15
119466	S16★	16	.55	.39	.29	.19
32521	S20★	20	.55	.39	.29	.25
32563	S26★	26	.59	.45	.35	.29
32643	S34★	34	.69	.55	.39	.25
32678	S40★	40	.85	.69	.55	.35
100386	IDC440	44(2mm)	1.75	1.49	1.29	1.09
32707	S50★	50	.95	.75	.59	.49
32758	S60★	60	1.09	.89	.59	.49

Non-Polarized IDC Socket Connectors

Part No.	Product No.	Contacts	1-9	10	100	500+
138376	SN10	10	$.45	$.35	$.25	$.15
138325	SN20	20	.55	.39	.25	.22
138333	SN26	26	.55	.39	.25	.22
138341	SN34	34	.69	.55	.39	.25
138350	SN40	40	.85	.69	.45	.35
138368	SN50	50	.95	.75	.55	.45

.100" Straight Low-Profile Shrouded Male Headers

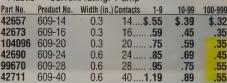- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid   68179
- Housing material: glass filled polyester, gray, UL94V-0
- Contact: phosphor bronze, gold-plated   - Wt.: .01 lbs.
- Use with IDC socket connectors (see above)

Part No.	Description	1-9	10-99	100-999	1000+
67811	10-pin	$.39	$.29	$.19	$.13
68179	16-pin	.45	.35	.25	.15
68291	20-pin	.55	.39	.29	.19
68371	26-pin	.69	.55	.39	.22
68582	34-pin	.75	.59	.35	.29

.100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 18, 20, 24, 28 & 40-pin DIP sockets with 0.1" spacing   - Wt.: .01 lbs.
- Uses 28 AWG flat ribbon cable (pg 51)   - Gold-plated contacts
- Plastic   - Current rating: 1 amp   42673

Part No.	Product No.	Width (in.)	Contacts	1-9	10-99	100-999
42657	609-14	0.3	14	$.55	$.39	$.32
42673	609-16	0.3	16	.59	.45	.35
104096	609-20	0.3	20	.75	.59	.35
42690	609-24	0.6	24	.85	.69	.45
99670	609-28	0.6	28	.95	.75	.55
42711	609-40	0.6	40	1.19	.89	.55

.100" IDC Plug Connectors

Double Row
- Shrouded header w/o mounting ears
- .100" x .100" grid
- Current rating: 1 amp   - Plastic   29217
- Contact: phosphor bronze, gold-plated   - Wt.: 0.02 lbs.
- Use with IDC socket for connectors (see above)

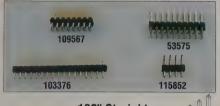| Part No.	Product No.	Contacts	1-9	10-49	50-99
29153	P20	20		Closeout	$.49
29161	P26	26	1.49	1.29	1.09
29170	P34	34	1.95	1.75	1.25
29188	P40	40	2.25	1.95	1.49
29217	P50	50	2.75	2.25	1.75

.100" Male Headers (Gold)

- Snap apart to fit your application
- Solder to PC boards for instant plug-in access via shorting blocks (right)
- .025" square posts on a .100" x .100" matrix
- Weight: .01 lbs.
- Use with crimp connector housing (pg 44)
- Contact material: phosphor bronze
- Contact area: gold
- Current rating: 1 amp
- Temperature range: -55°C to +120°C
- Insulation material: glass filled polyester
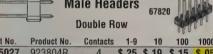
.100" Straight Male Headers
Single Row

Part No.	Product No.	Contacts	1-9	10	100	1000
108337	SMH02	2	$.19	$.12	$.08	$.04
109575	SMH03	3	.22	.15	.10	.05
117559	SMH04	4	.25	.19	.15	.06
108901	SMH08T(Tin)	8	.29	.22	.15	.05
103392	SMH10	10	.39	.29	.19	.08
103376	SMH17	17	.45	.35	.25	.13
103368	SMH20	20	.45	.35	.25	.13
103350	SMH25	25	.45	.35	.25	.13
103341	SMH30	30	.55	.45	.35	.15
68339	SMH36	36	.59	.49	.39	.22

.100" Straight Male Headers
Double Row

Part No.	Product No.	Contacts	1-9	10	100	1000
115027	923804R	4	$.25	$.19	$.15	$.05
115035	923806R	6	.35	.25	.17	.06
109516	923808R	8	.39	.29	.19	.08
67820	923810R	10	.45	.35	.25	.10
118455	923714R	14	.45	.35	.25	.11
109567	923816R	16	.45	.35	.25	.15
53479	923862R	20	.49	.39	.29	.14
53495	923863R	26	.55	.45	.35	.15
53516	923864R	34	.59	.49	.39	.17
115019	923864RT(Tin)	34			Closeout	.59
53532	923865R	40	.65	.55	.45	.22
53559	923866R	50	.75	.59	.49	.25
68574	923860R	60	.79	.65	.45	.29
109524	923772RT(Tin)	72	.59	.49	.39	.22
103405	923772R	72	.89	.75	.59	.32
117196	923780	80	.99	.79	.65	.35

.100" Right Angle Male Headers
Double Row

Part No.	Product No.	Contacts	1-9	10	100	1000
53575	923872R	20	$.75	$.59	$.45	$.29
53583	923873R	26	.79	.65	.49	.29
53604	923875R	40	.89	.75	.59	.39
53612	923876R	50	.99	.79	.49	.39
103413	923672R	72	1.09	.89	.59	.49
139563	923680R	80	1.25	.99	.69	.59

Single Row
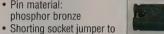
Part No.	Product No.	Contacts	1-9	10	100	1000
115852	RMH04	4			Closeout	$.05
103270	RMH36	36	.79	.65	.49	.29

.100" and 2mm Shorting Blocks
Mate with Male Headers (left)

- Pin material: phosphor bronze
- Shorting socket jumper to address or code strip line plugs (male header, left below)
- Mates to .025" square posts on .100" centers
- 22023 is open on top to allow for a test point while 19140 is closed – functionally they are the same
- 119263, 119458 2mm shorting blks (for disk drives)

Part No.	Description	1-9	10	100	1000
22023★	Top open, black	$.20	$.13	$.09	$.06
119263	Top open, black (2mm)	.23	.17	.13	.05
112424	Top open, blue	.23	.17	.10	.08
112416	Top open, red	.23	.17	.10	.08
19140★	Top closed, black	.20	.13	.09	.06
119458	Top closed, black (2mm)	.23	.17	.10	.08
112441	Top closed, blue	.23	.17	.13	.10
112432	Top closed, red	.23	.17	.10	.08

.100" Non-Polarized Connector Housing and Crimp Pins

- Mates with .025" square post on pattern of .100" centers (male headers, see left and pg 44)
- Current rating: 1 amp   • Pin material: brass tin plate   • Pin wire gauge: 26-22 AWG   • Plastic   • Wt.: .004 lbs.
- Temperature rating: -55°C to +105°C   • Use 99442 pin crimper (pg 44) for 100765 pins

Single Row

Part No.	Product No.	Contacts	1-9	10	100	1000
100811	SCH2	2	$.25	$.19	$.15	$.10
100802	SCH4	4	.35	.25	.17	.12
103211	SCH6	6	.39	.29	.19	.10
103202	SCH8	8	.45	.35	.19	.12
103190	SCH10	10	.49	.39	.25	.15
103181	SCH20	20	.59	.49	.29	.19
103157	SCH36	36	.69	.59	.39	.25
100765	FCH1	Female pin	.12	.08	.06	.05
145357	MCH1	Male pin	.12	.08	.06	.05

Double Row

Part No.	Product No.	Contacts	1-9	10	100	1000
103253	DCH8	8	$.55	$.45	$.35	$.19
103237	DCH16	16	.65	.55	.35	.25
103229	DCH20	20	.79	.65	.39	.29
100765	FCH1	Female pin	.12	.08	.06	.05
145357	MCH1	Male pin	.12	.08	.06	.05

.100" Female Header Receptacles

Single row right angle-side entry (A)

Double row right angle-side entry (A)

Single row vertical mount-top entry (B)

- Gold plated contacts   • 0.1" contact center   • Wt.: .008 lbs.

Right-Angle Mount (Side Entry) – A

Part No.	Contacts	Type	1-9	10	100	1000
70746	8	single row	$.55	$.45	$.25	$.22
71159	20	double row	1.49	1.25	.75	.65

Vertical Mount (Top Entry) – B

Part No.	Contacts	Type	1-9	10	100	1000
70754	8	single row	$.49	$.39	$.29	$.16
70720	16	double row	.99	.79	.65	.39
70826	20	double row	1.09	.89	.69	.49
109559	24	double row			Closeout	.19
105056	30	double row	1.25	.99	.69	.55
111704	40	double row (Tin)	.95	.79	.65	.39

Power Connectors, Housings, Pins and Tools

Connector & Housing Specifications:
- Housing material: white nylon 6/6 UL94V-2
- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

Crimp Pin Specifications:
- Material: brass, pre-tin
- Current rating: 1.5 amps
- Wire size range: 24-18 AWG
- Use crimp tool P/N 99442 (pg 44)

42067 & 42075 Connector Housings:
- Keyed mating connectors
- External key bar indicates pin 1

131879 & 131887 Extraction Tools:
- Quickly and easily extracts 0.93" locking pins from interlocking connectors
- Heavy duty metal construction   • Includes directions

Part No.	Product No.	Description	1-99	100	1000
114999	171826	4-pin male right angle PCB mounting conn. for 3.5" disk drive & pwr supp.	$.55	$.45	$.25
132927	171824	4-pin male straight PC mount conn. for 3.5" disk drive & pwr supp.		Closeout	.12
114930	171822	4-pin female connector housing for 3.5" disk drive and power supplies	.23	.17	.10
114921	170262	Female crimp pin for 114930	.07	.06	.04
109145	109145	4-pin male vertical PCB mounting conn. for 5.25" floppy drives & pwr supp.	.49	.39	.35
117567	175305	4-pin male PCB mounting conn. for 5.25" floppy drives, horizontal edge mount	.49	.39	.29
42075	480426	4-pin male connector housing for 5.25"/8" disk drive and power supplies	.23	.17	.13
42067	480424	4-pin female connector housing for 5.25"/8" disk drive and power supplies	.29	.22	.15
42729	61118	Male crimp pin for 42075 and 109196	.07	.06	.05
42649	60619	Female crimp pin for 42067	.08	.07	.06
78300	AMP60G	6-pin male PCB mounting connector for motherboards and power supplies	.45	.35	.25
78326	AMP50G	6-pin female connector housing for motherboards and power supplies	.35	.25	.12
78318	AMP501T	Female crimp pin for 78326	.07	.06	.04

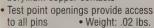| Part No.	Product No.	Description	Length	Weight	1-9	10-24
131887	HT319C	Male extraction tool for 42729	5"	0.1 lbs.	$10.95	$9.95
131879	HT319B	Female extraction tool for 42649	5"	0.1 lbs.	10.95	9.95

ARIES Low Profile ZIF Sockets

Provides a low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position measures just .554"(14.07mm).

- Cast metal cam • Strong rigid cam provides uniform action over entire contact area
- Tin plated, spring tempered beryllium copper contacts
- Test point openings provide access to all pins • Weight: .02 lbs.

Part No.	Product No.	Pins	1-9	10-24	25-49
102744	28-526-10	28	$4.49	$3.95	$3.49
102752	40-526-10	40	5.25	4.75	4.25

ARIES Universal ZIF Sockets

- UL94V-0 rated body
- 1000MΩ insulation resistance
- 25,000 to 50,000 contact cycles
- Accepts .300" to .600" IC centers x .1" spacing
- Solder directly to PCB or plug directly into IC socket
- Screw mounting holes for more reliable operation • Weight: 0.1 lbs.

Part No.	Product No.	Pins	1-9	10-49
103991	24-6554-10	24	$5.95	$4.95
104002	28-6554-10	28	6.95	5.95
104011	32-6554-10	32	7.95	6.95
104029	40-6554-10	40	8.75	7.25

3M ZIF Sockets

- Easy access lock and release lever
- Body ht: .47"
- Tin pins and contacts
- Socket lead length: .11"

Part No.	Product No.	Pins	Wt. (lbs.)	1-4	5-9	10-24
39079	216-3340	16	.05	$9.95	$8.75	$7.75
39239	228-3345	28	.05	12.95	11.75	10.49
39415	240-3346	40	.05	16.95	15.25	13.75

SIMM and SIPP Sockets

- Memory module sockets • Locking tabs
- Keyed mounting posts • Tinned contacts
- Weight: .02 lbs.

Part No.	Description	1-9	10-99	100-999
100301	Single x 30-pin, vertical SIMM	$.75	$.59	$.45
72389	Dual x 30-pin, angled SIMM	.25	.19	.10
72531	Dual x 30-pin, vertical SIMM	.79	.59	.45
72426	Single x 72-pin, vertical SIMM	.79	.59	.25
117541	Single x 8-pin SIPP	.10	.07	.03
102200	Single x 10-pin SIPP	.29	.25	.15
109436	Single x 12-pin SIPP	.12	.08	.03
101282★	Single x 20-pin SIPP	.49	.39	.19
78641	Single x 30-pin SIPP	.75	.65	.55
104053	Single x 30-pin SIPP (wire wrap)	2.35	1.95	1.65

Relay Series Socket 250

- 250VAC • Current: 20 Amps
- #6 screwdown terminals recommend P/N 103683 or 103587 solderless terminals (pg 49)
- #8 screws for mounting
- DIN rail mountable

141145: Use with relays P/N 139766, 139774, 139731 or 139740 (pg 41)
- Size: 2.0"L x 1.6"W x 0.8"H
- Weight: 0.08 lbs.

141153: Use with relays P/N 139782, 139758 (pg 41)
- Size: 2.0"L x 1.7"W x 1.2"H • Weight: 0.1 lbs.

Part No.	Product No.	Pins	1-9	10-49	50-99
141145	R95-113	8	$3.49	$2.95	$2.65
141153	R95-114	11	3.95	3.49	2.95

Relay Series Socket 388

- 250VAC • Current: 20 Amps
- Use with relays P/N 139846, 139862, 139854, 139820 or 139838 (pg 41)
- #6 screwdown terminals recommend P/N 103683 or 103587 solderless terminals (pg 49)
- #8 screws for mounting • DIN rail mountable
- Size: 3.0"L x 1.4"W 1.0"H • Weight: 0.2 lbs.

Part No.	Product No.	Pins	1-9	10-49	50-99
141161	R95-115	11	$5.49	$4.95	$4.49

14-Pin Crystal Oscillator Socket

- Low profile solder tail
- For full-can oscillators (pg 23)
- 14-pin style, but with only the 4 corner pins (machine tooled); they can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Good for prototyping and PCB mounting
- Weight: .001 lbs.

Part No.	Description	1-9	10-49	50-99	100
133006	Oscillator socket	$1.05	$.85	$.65	$.45

16/18-Pin DRAM Option Socket

Allows flexibility in using 16 or 18-pin DRAMs

- Contact plating: tin • Dual wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Tin-plated tails • Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Lead lgth: .125" • Body ht.: .156" • Weight: .003 lbs.

Part No.	Product No.	Description	1-9	10-99	100-999
119626	34LPDD	34-pin	$.10	$.06	$.02

ARIES Collet Pin Carriers

Use Aries precision stamped collet pin insertion carriers and eliminate time consuming hand insertion of pins.

- Contact: collet – beryllium copper
- Plating: gold collet/tin shell only
- Body: brass • Weight: .01 lbs.

Part No.	Description	Width (in.)	1-9	10-99	100+
118199	14-pin carrier	0.3	$.19	$.15	$.08
105347	16-pin carrier	0.3	.29	.25	.10
118210	40-pin carrier	0.6		Closeout	.10

Wire Wrap Socket I.D. Markers

- Quick identification of pin numbers
- Slips onto socket before wrapping (plastic)
- Can easily write location, part number or function

Part No.	Prod. No.	Pins	Width (in)	Wt. (lbs.)	1-9	10-99	100-499
51561	8ID	8	0.3	.001	$.29	$.19	$.17
37145	14ID	14	0.3	.001	.29	.19	.17
37356	16ID	16	0.3	.001	.29	.19	.17
38105	18ID	18	0.3	.001	.45	.35	.29
38586	20ID	20	0.3	.001	.45	.35	.29
39327	24ID	24	0.6	.001	.49	.39	.35
40299	28ID	28	0.6	.001	.49	.39	.35
41101	40ID	40	0.6	.001	.65	.55	.45

DIP Header Plugs

- Gold-plated leads (*134922 is tin plated)
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead lgth: .188" • Wt.: .002 lbs.
- 0.1" spacing between leads

DIP Header Plugs

Part No.	Product No.	Width (in.)	Pins	1-9	10-99	100-499
104336	8HP	0.3	8	$.59	$.49	$.39
134922	14THP*	0.3	14	.49	.39	.25
37129	14HP★	0.3	14	.75	.65	.55
37330	16HP★	0.3	16	.85	.75	.65
38578	20HP	0.3	20	.99	.85	.75

PLCC Sockets   Reduced Pricing

- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.50" centers)
- Lead lgth.: .125" • Body ht.: .375"

Part No.	Product No.	Pins	Wt. (lbs.)	1-9	10-49	50-99	100
71263	G1P428	28	.02	$.75	$.65	$.55	$.49
71811	G1P432	32	.02	.99	.85	.75	.69
71618	G1P444	44	.02	1.15	.99	.85	.75
72442	G1P452	52	.02	1.35	1.15	.99	.75
71968	G1P468	68	.02	1.45	1.25	1.09	.79
71976	G1P484	84	.02	1.55	1.35	1.15	.75

PGA Socket

- Contact plating: gold
- Tin plated leads
- Contact current: 3A
- Contact resistance: less than 5mΩ • Weight: .01 lbs.

Part No.	Description	1-9	10-49	50-99	100
43457	68-pin socket	$1.25	$.99	$.75	$.49

Plastic IC Storage Tubes and Rubber Rail Stops

29516: Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. Length: 23.75"
29524: Wide tube (rail) fits 24, 28, 32, 40 and 48-pin integrated circuits. Length: 20"
29583: Rubber stops used to plug plastic rail ends

Part No.	Prod. No.	Description	Wt. (lbs.)	1-9	10-99	100-999
29516	RIC20	Thin plastic rail	.04	$.39	$.25	$.15
29524	RIC220	Wide plastic rail	.07	.39	.25	.15
29583	RRS	Rubber stop	.001	.10	.05	.03

4-40 Mounting Screw Hardware for D-Subminiature Connectors

16547	Jack screw only .19 / .50 / 16547

.19 / .62 / 102816	108986	102795

102808	108741

• Weight: .01 lbs.

Part No.	Product No.	Description	1-9	10-99	100-499
16547	D20418-2★	.5" jack screw (2), washer (2), nut (2), lock washer (2)	$.45	$.35	$.25
102816	D14556-2	.62" jack screw (2)	.49	.39	.32
108986	D14557-2	.75" jack screw (2)	.45	.35	.25
102795	D14552-2★	.238" hex nut (2)	.49	.39	.32
102808	D14553-2	.384" screw (2), retainer (2)	.45	.35	.25
108741	A895	.53" jack screw (2), washer (4), nut (2), .34" screw (2), retainer (2)	.59	.49	.32

Part No.	A"	B"	C"	D"	E"	F"
125014	.32	1.1	.33	.47	.157	.08

Part No.	Product No.	Description	1-9	10-99	100-499
125014	TS1	1.9" thumb screw	$.39	$.29	$.19

Female Centronics Hardware

Includes: screws (2), washers (2), spring clips with retainers (2)

Part No.	Product No.	Description	1-9	10-99	100-499
117680	488KIT4	Burndy hardware	$.45	$.35	$.25

D-Subminiature Connector Hoods

15085 Plastic	25620 Metalized

• For use with D-sub solder cup & housing style connectors
• Hardware included • Weight: 0.2 lbs.
D Series: plastic hood with strain relief (gray)
MD Series: metal coated plastic hood with strain relief
DB25MH: die-cast metal DB25 hood with strain relief

Part No.	Product No.	Type	1-9	10-99	100-499
15721	DE9H★	9-pin, plastic	$.35	$.25	$.19
25620	MDE9H	9-pin, metalized	.49	.39	.29
15018	DA15H★	15-pin, plastic	.39	.29	.25
25566	MDA15H	15-pin, metalized	.49	.39	.29
15085	DB25H★	25-pin, plastic	.39	.29	.22
25603	MDB25H	25-pin, metalized	.55	.45	.32
15106	DB25MH	25-pin, metal cast	1.25	.99	.39
15456	DC37H★	37-pin, plastic	.59	.49	.39
15659	DD50H	50-pin, plastic	Closeout		.25

25-Pin Dual Connector Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects. Connectors not included. Hardware included. • Weight: .04 lbs.

Shown assembled

Part No.	Product No.	Type	1-9	10-99	100-499
34091	TT25	25-pin, plastic dual	$.85	$.65	$.55

D-Subminiature Connectors

• Metal shells are tin-plated for improved EMI/RFI shielding
• Insulation material: PBT, UL rated 94V-0 • Insulation resistance: minimum 1000MΩ at 500VDC
• Contact material: phosphor bronze (gold plating over nickel)
• Current rating: 1A to 5A • Dielectric withstanding voltage: 1000V (one minute)
• Operating temperature: -55°C to +105°C

15114 Front

D-Subminiature Right Angle, PC Mount Connectors

Shell is available in low-cost plastic, or in metal for shielding applications. Tables below indicate shell type.
• Weight: .04 lbs.

104977

Set Back (Short) 0.318"
Set Back (Medium) 0.450"
Set Back (Long) 0.590"

0.318" Set Back (Short Style)

Part No.	Product No.	Contacts	Gender	Shell	1-9	10-99	100-499
104942	DE9P318	9	M	metal	$.49	$.39	$.32
104951	DE9S318	9	F	metal	.55	.45	.35
71124	DA15P318	15	M	metal	.69	.55	.45
77956	DA15S318	15	F	metal	.75	.59	.35
71466	DA15S318HD	15	F	metal*	.75	.59	.25
15149	DB25P318	25	M	metal	.75	.59	.49
15181	DB25S318	25	F	metal	.79	.65	.55
71706	DC37P318	37	M	metal	1.39	1.19	.99
78182	DC37S318	37	F	metal	1.49	1.25	.55

*High Density

0.450" Set Back (Medium Style)

Part No.	Product No.	Contacts	Gender	Shell	1-9	10-99	100-499
130534	PDBN25SAA	25	F	plastic	$.25	$.15	$.08

0.590" Set Back (Long Style)

Part No.	Product No.	Contacts	Gender	Shell	1-9	10-99	100-499
104969	DE9P590	9	M	metal	$.69	.55	.45
15763	DE9P590PL	9	M	plastic	.29	.19	.08
104977	DE9S590	9	F	metal	.79	.65	.39
15801	DE9S590PL	9	F	plastic	Closeout		.10
104985	DA15P590	15	M	metal	Closeout		.10
104993	DA15S590	15	F	metal	1.19	.99	.75
105005	DB25P590	25	M	metal	.99	.79	.39
105013	DB25S590	25	F	metal	1.39	1.19	.99
105030	DB25S590PL	25	F	plastic	.29	.19	.08

D-Subminiature IDC Ribbon Cable Connectors

Specifications:
• Electrical rating: 1 amp
• Temp range: -55°C to +120°C
• Insulation mat: glass filled polyester
• Contact material: phosphor bronze • Weight: .05 lbs.
• P/N 109217 & 109225 require flat cable w/ .0625" centers

12431

Features:
• Terminates with standard D type connectors

Part No.	Product No.	Contacts	Gender	Shell	1-9	10-99	100-499
109225	MDE9P	9	M	metal	$.85	$.69	$.59
12503	CDE9P★	9	M	plastic	1.09	.95	.85
109217	MDE9S	9	F	metal	.85	.69	.35
12520	CDE9S★	9	F	plastic	1.09	.95	.85
117381	MDA15P	15	M	metal	1.19	.99	.89
12298	CDA15P★	15	M	plastic	1.39	1.19	.99
116011	MDA15S	15	F	metal	1.19	.99	.89
12319	CDA15S★	15	F	plastic	1.39	1.19	.99
115983	MDB25P	25	M	metal	1.39	1.19	.99
12335	CDB25P★	25	M	plastic	1.39	1.19	.99
115975	MDB25S	25	F	metal	1.39	1.19	.99
12431	CDB25S★	25	F	plastic	1.39	1.19	.99
115991	MDC37P	37	M	metal	1.95	1.75	1.55
12466	CDC37P★	37	M	plastic	2.39	1.99	1.75
116003	MDC37S	37	F	metal	2.15	1.89	1.69
12482	CDC37S★	37	F	plastic	2.39	1.99	1.75

D-Subminiature Solder Cup Connectors

• Compatible with 24 AWG communications cable (pg 51)
• Compatible with 22 AWG solid cable (pg 51) • Weight: .04 lbs.

15114 Back

Part No.	Product No.	Contacts	Gender	Shell	1-9	10-99	100-499
15747	DE9P★	9	M	metal	$.39	$.29	$.22
15771	DE9S★	9	F	metal	.45	.35	.25
15077	DB15HDP	15	M	metal*	.69	.55	.45
15034	DA15P★	15	M	metal	.45	.35	.25
15051	DA15S★	15	F	metal	.55	.45	.35
15114	DB25P★	25	M	metal	.55	.45	.35
15157	DB25S★	25	F	metal	.59	.49	.39
15472	DC37P★	37	M	metal	.89	.75	.65
15499	DC37S★	37	F	metal	.99	.79	.69
15675	DD50P	50	M	metal	1.39	1.19	.85
15691	DD50S	50	F	metal	1.49	1.25	.75

*High Density

D-Subminiature Straight, PC Mount Connectors

• Insulator material: two-piece nylon
• Current rating: 5 amps
• Non-removable contacts
• Contact material: copper alloy with gold over nickel contact plate • Voltage rating: 1250VAC rms at sea level • Operating temperature: -65°F to +250°F
• Weight: .03 lbs.

15122 Back

Part No.	Product No.	Contacts	Gender	Shell	1-9	10-99	100-499
111691	DE9PPCB	9	M	metal	$.45	$.35	$.25
15780	DE9SPCB	9	M	metal	.49	.39	.29
15122	DB25PPCB	25	M	metal	.55	.45	.25
15165	DB25SPCB	25	F	metal	.69	.55	.45

D-Subminiature Wire Wrap 2 Level Connector

• Non-removable contacts
• Contact current rating: 5 amps

Back

• Materials: shells – steel cadmium with yellow chromate; glass filled polyester
• Operating temperature: -65°F to 250°F
• Voltage rating: 1250VAC rms at sea level
• 2 level wrap pins • Weight: .03 lbs.

Part No.	Product No.	Contacts	Gender	Shell	1-9	10-99	100-499
109452	DB25SWW	25	F	metal	$3.49	$2.95	$1.95

IDC Centronics Connectors

• Contact material: phosphor bronze, gold plated • Plastic
• Current rating: 1 amp
• Use 73251 IDC crimping tool (below)
• Temp. rating: -55°C to +105°C • Weight: .04 lbs.

13848

Part No.	Product No.	Contacts	Type	1-9	10-99	100+
13848	CEN36M	36	Male	$1.95	$1.49	$1.25
13821	CEN36F	36	Female	2.15	1.69	1.35

IDC Crimping Tool

Insulation Displacement Connector

• Crimp insulation displacement connectors
• Crimping distance: 27.5mm to 6mm (with attachment)
• Cushioned red handles • Weight: 1.1 lbs.
• Size: 9.2"L x 3.0"W
• Use for IDC socket connectors (pg 44)

Part No.	Description	1-4	5-9
73251★	IDC crimp tool	$14.95	$13.49

Make the modular connection and save

See page 88 for punch-down tool!

RS232 cables and connectors are bulky, slow to assemble, heavy, and worst of all, not always interchangeable. Modular cable is thinner, lighter and more flexible than RS232 cables. Modular cables are also cheaper than standard RS232 cabling, and easier to route, which is why modular connectors are fast becoming the industry standard.

Couplers and Adapters

Redwood Pricing

- Weight: .02 lbs.

Style 1: Reverse wiring – Telephone systems
Style 2: Straight wiring – Networking/printer sharing

Part No.	Description	Fig.	1-9	10-99	100+
71757	6P6C modular coupler, Style 1	3	$.85	$.65	$.49
135087	6P6C modular coupler, Style 2	3	.95	.75	.49
118501	8P8C modular coupler, Style 1	3	1.25	1.09	.85
135079	8P8C modular coupler, Style 2	3	1.35	1.15	.89
72207	6P4C male "T" adapter. Provides two jacks from one line. Male modular plug (6P4C), two female modular receptacles (6P4C), Style 1	4	1.25	1.09	.65
75248	6P4C female "T" adapter. Provides two jacks from one cable. Female jack (6P4C), two female modular receptacles (6P4C), Style 1	4	1.25	1.09	.85

Surface Mount Wall Jacks and Plate

- Weight: .01 lbs.

P = Number of positions C = Number of contacts
W/E = Western Electric type no. All items beige in color.

Part No.	Description	W/E	Fig.	1-9	10-99	100+
72311	6P6C & 8P8C double wall jack plate	—	1	$1.95	$1.65	$1.35
103464	6P4C adhesive jack RJ11 (SMT)	625A-4	2	1.39	1.19	.75
71984	6P6C adhesive jack RJ11 (SMT)	625BS-6	2	1.45	1.25	.79
71651	8P8C adhesive jack RJ45 (SMT)	635	2	1.65	1.35	1.09

Fig.1 W: 2.8" H: 4.5" 72311
Fig.2 W: 2.0" H: 2.2" D: 0.9" 71651
Fig.3 W: 1.5" H: 0.9" D: 0.7" 71757
Fig.4 W: 1.1" H: 0.8" 72207

Modular Plugs

- Color: clear • Gold-plated contacts
- For stranded telephone cable • Weight: .01 lbs.

P = Number of positions C = Number of contacts
W/E = Western Electric type number

Part No.	Description	W/E	1-9	10-99	100	OEM 1000
103491	4P4C (handset)	616	$.19	$.15	$.12	$.09
79290	6P4C (RJ11)	623	.16	.12	.10	.08
79273	6P6C (RJ11)	623	.19	.15	.12	.09
79281	8P8C (RJ45)	641	.35	.25	.19	.15
119343	8P8C (RJ45) unshielded (for solid wire)		.35	.25	.19	.15
116610	8P8C (RJ45) shielded (for stranded wire)		1.35	1.15	.99	.69
116601	8P8C (RJ45) shielded (for solid wire)		1.49	1.29	.99	.89

Modular Jacks

- PC mount • Durability: 750 mating cycles
- Voltage rating: 150 volts AC max.
- Contact current rating: 1.5 amp max. @ 25°C
- Weight: .01 lbs.

P = Number of positions
C = Number of contacts
W/E = Western Electric type number
129701: Compatible with Hirose P/N TM5RJ2-66

Part No.	Description	W/E	1-9	10-99	100+
115128	4P4C jack (handset)	—	$.79	$.59	$.39
105945	6P4C jack (RJ11)	623	.79	.59	.29
115836	6P6C jack (RJ11)	—	.89	.69	.49
129701	6P6C jack (RJ11) TM5RJ2-66	—	.39	.29	.15
124038	6P6C jack (RJ11) 6" leads	—	.95	.75	.49
115844	8P8C jack (RJ45)	641	.85	.65	.35

Plastic Modular Crimping Tool

- Crimps 4P, 6P and 8P plugs (4P2C, 4P4C, 6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)
- Includes cable stripper and wire cutter
- Size: 8.0"L • Weight: 0.5 lbs.

Part No.	Description	1-9	10-24
116097	RJ11 crimping tool	$14.95	$13.49

Metal Modular Crimping Tools

- Cable stripper and wire cutter
- Size: 8.0"L • Weight: 1.8 lbs.
- 73091: Crimps 4P and 6P plugs (4P2C, 4P4C, 6P2C, 6P4C, 6P6C, RJ11)
- 114526: Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, RJ11, 8P2C, 8P4C, 8P6C, 8P8C)

See page 50 for more crimping tools!

Part No.	Description	1-4	5-9
73091	RJ11(4P4C)/RJ11(6P6C)	$26.95	$22.95
114526	RJ11(6P6C)/RJ45(8P8C)	29.95	26.95

Connectors and Accessories

D-Subminiature Housing Crimp Type Connectors and Pins

- Connectors: metal shell; removable crimp male/female pin
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: red/white plastic body; exchangeable tips
- Use 99442 (pg 86) to crimp male and female pins (43377, 43369)
- Weight: .01 lbs.

43369 (Fits all female housings)
38771
19094

Part No.	Product No.	Description	1-9	10-99	100-499
73189	205204M	DE9 male housing	$.45	$.35	$.29
73197	205203F	DE9 female housing	.45	.35	.29
38789	205208M	DB25 male housing	.65	.49	.39
38771	205207F	DB25 female housing	.65	.49	.39
43377	66506	Male crimp pins	.09	.06	.04
43369	66504	Female crimp pins	.09	.06	.04
19094	ITS25	Insertion/extraction tool for above pins	3.95	2.95	1.95

50-pin Half Pitch IDC SCSI-II Connectors

Crimp two ribbon cables (P/N 37760, pg 51) and create your own cable. 139361

- Weight: .02 lbs.

139352: HDB50P 50-pin high density D-sub male
139361: HDB50S 50-pin high density D-sub female

Part No.	Description	1-9	10-99	100+
139352	50-pin male SCSI-II	$3.95	$3.49	$2.49
139361	50-pin female SCSI	4.49	3.95	2.95

68-pin Half Pitch SCSI-III Connectors

Crimp two ribbon cables (P/N 37840, pg 51) and create your own assembled SCSI-III 68-pin cable. 139070

- Weight: .03 lbs.

139061: HDB68P 68-pin high density D-sub male
139070: HDB68S 68-pin high density D-sub female

Part No.	Description	1-9	10-99	100+
139061	68-pin male SCSI-III	$4.49	$3.95	$2.95
139070	68-pin female SCSI-III	4.95	4.49	3.95

Centronics Parallel Interface Connectors

Metal Body and Shell, Solder Type Contacts

42382

- Compatible with industry standard • Weight: .01 lbs.
- Solder eyelets accept 24 AWG wire (pg 51)

Male Cable Plugs
- Complete with cable boot, shell and hardware

Female Cable Receptacle • Can be used as panel mount
- Complete with spring latches and cable boot

Part No.	Product No.	Description	1-9	10-99	100+
42382	57-30360	36-contact male	$1.65	$1.35	$.95
42403	57-60360	36-contact female	1.75	1.49	1.09

PCB Right Angle Centronics Interface Connectors

72151 72080

- Solder-type contacts • Metal body
- Space between rows: 0.59" • PC mount
- Space between pins: 0.1" • Weight: 0.06 lbs.

Part No.	Description	1-9	10-99	100+
72151	36-contact female	$1.75	$1.49	$1.25
72080	50-contact female	1.95	1.65	1.45

OEM Pricing

We carry major manufacturers – call for pricing on quantities over 1000.

BNC/TNC/UHF Coax Connectors

Application: ThinNet/Ethernet, video, cellular phone, antennas
- Weight: .06 lbs.

Part No.	Fig.	Description	1-9	10-99	100-499	500+
71458	1	BNC male terminator (50Ω)	$1.75	$1.29	$.89	$.75
71790	1	BNC male terminator (75Ω)	1.75	1.29	.89	.75
112002	2	BNC male terminator with chain (50Ω)	2.25	1.75	1.49	1.15
135618	3	BNC male with pin and ferrule (RG6)	.85	.69	.49	.45
71482	3	BNC male with pin and ferrule (RG58)	1.09	.89	.69	.59
71271	3	BNC male with pin and ferrule (RG59/62)	.99	.79	.65	.55
112109	3	BNC male with pin and ferrule (RG174)	1.49	1.15	.79	.69
119394	4	BNC male clamp-on (RG59/62)	1.25	.99	.75	.59
108994	5	BNC male twist-on (RG58)	1.09	.89	.69	.59
71781	5	BNC male twist-on (RG59/62)	1.25	.99	.75	.65
116433	6	BNC female twist-on (RG58)			Closeout	.10
71589	7	BNC female panel mount (UG-1094A)	1.25	.99	.75	.59
71909	8	BNC female/female coupler (UG-914)	.85	.69	.59	.49
127343	9	BNC male/male coupler (UG-491B/U)	1.85	1.45	.99	.89
111561	10	BNC female isolated bulkhead	1.49	1.15	.79	.69
116425	11	TNC male twist-on (RG59/62)			Closeout	.10
116450	12	TNC male twist-on (RG58)			Closeout	.10
116409	13	TNC female to female chassis mount			Closeout	.15
127351	14	BNC M-F right angle (DG-306B/0)	2.25	1.75	1.49	1.35

Blowout Prices!

Figure 1
Figure 2
Figure 3
Figure 4
Figure 5
Figure 6
Figure 7
Figure 8
Figure 9
Figure 10
Figure 11
Figure 12
Figure 13
Figure 14

BNC Coax T Adapter Connectors

Application: General purpose coax T adapter; ThinNet/Ethernet LAN adapter
- Single BNC male (twist-on plug) to double BNC female
- Color: silver • Weight: .08 lbs.

Part No.	Description	1-9	10-49	50-99	100+
72629	Female to female/female T adapter	$2.49	$1.95	$1.65	$1.35
118594	Male to female/female T adapter	2.49	1.95	1.65	1.35
100589	Male to female/female T adapter (90°)	4.49	3.95	3.49	3.15
100597	Male to female/female T adapter (180°)	4.49	3.95	3.49	3.15
117461	Male to female/female F adapter (90°)	4.49	3.95	3.49	3.15

72629
118594
100589
100597
117461

BNC & RCA Adapter Connectors

114770
114788
114753

Application: • Convert existing cabling systems to more readily available parts for expansion, replacement or upgrade • Weight: .02 lbs.

Part No.	Description	1-9	10-49	50-99	100+
114770	BNC F to "F" conn. M	$1.95	$1.49	$1.25	$.99
114788	RCA F to BNC M	1.25	.99	.75	.65
114753	RCA M to BNC F	1.25	.99	.75	.65

BNC Coax Network Balun

Application:
- Converts BNC coaxial cable to twisted-pair wires with either a modular (RJ11) jack or 2 screw terminals
- 100Ω termination • Wt.: 0.1 lbs.

Part No.	Description	1-9	10-24	25-49
72637	BNC coax network balun	$5.49	$4.95	$4.25

Twinaxial Connectors For IBM

- Weight: 0.1 lbs.
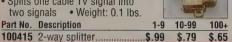
Part No.	Description	1-9	10-24	25-49
72645	Male solder type conn.	$3.95	$3.25	$2.75

Cable TV Splitter

- Effective frequency range: 5-900MHz
- Splits one cable TV signal into two signals • Weight: 0.1 lbs.

Part No.	Description	1-9	10-99	100+
100415	2-way splitter	$.99	$.79	$.65

Insulated Solderless Terminals

- Insulation thickness: .030"
- Funnel ramp entry
- Temperature to 105°C • Weight: .002 lbs.
- Use with Jameco crimping tool 72995 (below)

Ring Solderless Terminals (Insulated)

Part Number	Color	Wire Gauge AWG	Stud Size	Pricing 1-99	100-999	OEM 1000+
103683	Red	22-16	#6	$.08	$.05	$.035

Spade Solderless Terminals (Insulated)

Part Number	Color	Wire Gauge AWG	Stud Size	Pricing 1-99	100-999	OEM 1000+
103587	Red	22-16	#6	$.08	$.05	$.035
103595	Blue	16-14	#8	.08	.05	.035

Disconnect Solderless Terminals (Insulated)

*109111 includes hood

Part Number	Description	Color	Wire Gauge	Blade Width	Pricing 1-99	100-999	OEM 1000+
103561	Female	Red	22-16	.11	Closeout		$.04
106921	Female	Red	22-16	.187	.10	.06	.04
103667	Female	Red	22-16	.25	.10	.06	.04
109111*	Female	Red	22-16	.25	.11	.07	.05

Terminal Wire Crimping Tool

- Crimps solderless terminals: 22-18 AWG red, 16-14 AWG blue and 12-10 AWG yellow
- Size: 9.0"L x 2.0"W • Weight: 0.8 lbs.

Part No.	Product No.	Description	1-4	5-9
72995	JE303	Crimping tool	$19.95	$17.95

171 Pc. Solderless Terminal Kit

- Clear, hinged plastic box
- Box size: 8.3"L x 4.3"W x 1.3"H
- Use crimping tool P/N 72995 (left below)
- Weight: 0.6 lbs.
- Contains 18 different types of terminals and connectors (170 total pieces) as follows:

170 Terminals and Connectors!

Qty.	Description	Wire Gauge	Blade Size	Qty.	Description	Wire Gauge	Blade Size
10	Male discon.	22-16	1/4"	10	Ring term.	16-14	#10
10	Male discon.	16-14	1/4"	5	Ring term.	12-10	#10
10	Fem. discon.	22-16	1/4"	5	Ring term.	12-10	#14
10	Fem. discon.	16-14	1/4"	10	Spade term.	22-16	#6
10	Ring term.	22-16	#6	10	Spade term.	22-16	#8
10	Ring term.	22-16	#8	10	Spade term.	16-14	#10
10	Ring term.	22-16	#10	10	Butt connec.	22-16	–
15	Ring term.	16-14	#6	10	Butt connec.	16-14	–
10	Ring term.	16-14	#8	5	Butt connec.	12-10	–

Part No.	Product No.	Description	1-9	10-49
10989	A18K	Terminal kit	$9.95	$8.95

PCB Mount SMA Connectors NEW

Application: cellular phone, data communication, instrumentation, video
- Blunt-post terminal
- Four legs (leads)
- Gold plated

145373
145381

Part No.	Description	1-9	10-49	50+
145373	Right angle female (jack)	$6.95	$6.35	$5.49
145381	Straight female (jack)	5.95	5.49	4.95

Reduced Pricing

We carry major manufacturers – call for large OEM pricing.

Assembled BNC Coax Cables

- Pre-assembled with coax connectors
- Select the correct length for your specific application

85542

RG58/U 50Ω Cables
- For Ethernet networks, oscilloscopes • Weight: 2.2 lbs.

Part No.	Product No.	Cable	Length	1-9	10-49	50+
102314	CRG58-1	RG58/U	1.5 ft.	$2.49	$2.25	$1.95
11404★	CRG58-3	RG58/U	3 ft.	2.75	2.49	1.95
102331	CRG58-6	RG58/U	6 ft.	2.95	2.75	2.25
102349	CRG58-12	RG58/U	12 ft.	4.49	3.95	3.49
102357	CRG58-25	RG58/U	25 ft.	5.95	5.25	4.25
102365	CRG58-50	RG58/U	50 ft.	7.95	6.95	5.95
102381	CRG58-100	RG58/U	100 ft.	10.95	9.95	8.95

RG59/U 75Ω Cables
- For CATV and video patch cords • Weight: 0.4 lbs.

Part No.	Product No.	Cable	Length	1-9	10-24	25-49
86471	CRG59-1	RG59/U	1.5 ft.	$2.49	$2.25	$1.95
85542	CRG59-6	RG59/U	6 ft.	2.95	2.75	2.49
102373	CRG59-12	RG59/U	12 ft.	4.25	3.75	3.25

RG62/U 93Ω Cable
- For Arcnet and IBM 3270 networks • Weight: 0.6 lbs.

Part No.	Product No.	Cable	Length		Price
102445	CRG62-20	RG62/U	20 ft.	Closeout	$.35

RG174/U 50Ω Cables
- For Ethernet networks, oscilloscopes • Weight: 0.1 lbs.

Part No.	Product No.	Cable	Length	1-9	10-24	25-49
111472	RG174U3	RG174/U	3 ft.	$2.75	$2.49	$1.95
111481	RG174U6	RG174/U	6 ft.	3.49	2.95	2.25

Jameco F-type 75Ω Cables

Reduced Pricing

- Typical application: F connector (VCR)
- Low signal loss
- Made of high-quality 75 ohm RG59 cable
- Strain relief
- Compatible with cable TV splitter (pg 49) • Weight: 0.2 lbs.

85585

Part No.	Product No.	Cable	Length	1-9	10-49	50+
85585	FS3FS	RG59/U	3 ft.	$.99	$.85	$.75
85593	FS6FS	RG59/U	6 ft.	1.49	1.25	.99

Coaxial Cables*

- Insulation: PVC
- Wt.: .04 lbs. per foot
- See connectors – pg 49

RG58/U & RG58A/U Cable (50Ω)
- 20 AWG solid copper with copper braided shield (RG58/U)
- 20 AWG stranded with copper braided shield (RG58A/U)
- Nominal capacitance: 27pf/ft.
- Center conductor resistance: 10.4Ω/1000 ft. @ 77°F

Part No.	Product No.	Description	100 ft.*	1000 ft.*
102226	RG58/U (solid wire)	For Ethernet networks, oscilloscopes	$10.00	$80.00
116898	RG58A/U (stranded)	For Ethernet networks, oscilloscopes	15.00	110.00

RG59/U Cable (75Ω)
- 22 AWG solid copper center conductor with copper braided shield • Nominal capacitance: 19pf/ft.
- Center conductor resistance: 16.5Ω/1000 ft. @ 77°F

Part No.	Product No.	Description	100 ft.*	1000 ft.*
102218	RG59/U	For CATV and video patch cords	$12.00	$80.00

RG62A/U Cable (93Ω)
- 22 AWG solid copper center conductor with copper braided shield • Nominal capacitance: 13pf/ft.
- Center conductor resistance: 16.5Ω/1000 ft. @ 77°F

Part No.	Product No.	Description		
104686	RG62A/U	For Arcnet networks and IBM 3270	Closeout	$5.00/100 ft.

RG174/U Cable (50Ω)
- 26 AWG stranded (7 x 34) with copper braided shield
- Nominal capacitance: 30.8pf/ft.
- Center conductor resistance: 97Ω/1000 ft. @ 77°F
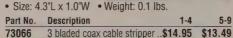
Part No.	Product No.	Description	100 ft.*	1000 ft.*
112037	RG174/U	For Ethernet networks, oscilloscopes	$12.00	$90.00
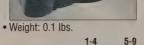
*Must be ordered in increments of 100' or 1000'

Jameco 3 Bladed Adjustable Coaxial Cable Stripper

- Strips RG58, 59, and 62 cable (left)
- Heavy duty black plastic construction
- Replaceable blades
- Size: 4.3"L x 1.0"W • Weight: 0.1 lbs.

Part No.	Description	1-4	5-9
73066	3 bladed coax cable stripper	$14.95	$13.49

Jameco Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction
- Size: 8.5"L x 2.5"W • Weight: 1.1 lbs.

Part No.	Description	1-4	5-9
114534	Ratcheted BNC crimping tool	$21.49	$19.95

Jameco Coaxial Cable Tester

- Pre-test cables and reduce installation time with this handy tester
- Mature system installation will start having intermittent cable problems due to normal wear
- Test cables for shorts and opens
- Test BNC or TNC type cables
- Zipper case included
- Requires 9VDC battery (not included)
- Size: 4.5"L x 2.5"W x 1.3"H • Weight: 0.4 lbs.

Part No.	Description		Price
115887	Coaxial cable tester	SALE	$35.95

Jameco Modular Crimping Tool Set

- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps 4P, 6P and 8P plugs
- Includes: 90 modular plugs, 40 4P4C modular plugs (616), 30 6P6C modular plugs (623), 20 8P8C modular plugs (641)
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.

Part No.	Description	Price
73496	Modular crimping tool set	$79.95

Nylon Cable Ties and Mounting Accessories

New Cable Tie Assortment – See Inside Back Cover!

Nylon Cable Ties

Standard
- Cable ties made from UL approved nylon 6/6
- Temperature range: -40°C to +85°C
- Flamability rating: UL 94V-2

70560
70906

Part No.	Description	Tensil Strength	Dimensions	1-99	100	1000+
70560	Cable tie (clear)	18 lbs.	3.1"L x 0.1"W	$.05	$.025	$.015
126543	Cable tie (clear)	18 lbs.	4.0"L x 0.1"W	.05	.025	.015
139150	Cable tie (clear)	18 lbs.	8.0"L x 0.1"W	.07	.04	.025
139168	Cable tie (clear)	40 lbs.	5.5"L x 0.13"W	.07	.04	.025
70906	Cable tie (clear)	40 lbs.	5.8"L x 0.1"W	.07	.04	.025
139176	Cable tie (clear)	50 lbs.	4.8"L x 0.18"W	.07	.03	.02

Weather Resistance
UV Resistant

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use

104141

Part No.	Description	Tensil Strength	Dimensions	1-99	100	1000+
139125	Cable tie (black)	18 lbs.	3.0"L x 0.9"W	$.05	$.025	$.015
104141	Cable tie (black)	18 lbs.	4.0"L x 0.1"W	.05	.025	.015
139133	Cable tie (black)	40 lbs.	5.5"L x 0.13"W	.07	.04	.025
104133	Cable tie (black)	40 lbs.	5.8"L x 0.1"W	.07	.04	.025
139141	Cable tie (black)	50 lbs.	4.8"L x 0.18"W	.07	.03	.02

Nylon Cable Tie Mounts and Cable Clamp

- Screw tab and cradle mount adhesive
- Used with nylon cable ties at left

70594   71407/71394/71386   134754

Part No.	Description	1-99	100	1000+
70594	0.8"L x 0.4"W screw 4-way cable tie, used with 0.2"W max	$.13	$.10	$.05
71407	0.9" square adhesive 4-way cable tie, used with 0.1"W max	.15	.12	.07
71394	1.1" square adhesive 4-way cable tie, used with 0.2"W max	.19	.15	.09
71386	1.1" square adhesive 2-way cable tie, used with 0.4"W max	.23	.19	.12
134754	Cable clamp for 3/8" cable	.07	.04	.02

Nylon Ties and ID Tabs

71061   70885   135175

Part No.	Description	Dimensions	1-99	100	1000+
71061	ID tab (0.98 x 0.31)(clear)	4.0"L x 0.1"W	$.14	$.09	$.05
135175	Cable tie ID marker (nylon)	2.0"L x 0.8"W x .02"T	.09	.04	.04
70885	AC power cord tie (clear)	6.3"L x 0.4"W	.11	.06	.04

JAMECO

$1.39 SALE — Sale price good at this quantity only
SALE — Sale price to the right of banner good for that quantity, or less

FTP — Documentation available at ftp.jameco.com

Also available at your local JIM-PAK retailer - see page 128

OEM Pricing Available!

We carry major manufacturers – call for large OEM pricing.

18/20/22 AWG Stranded Hookup Wire

300 Volts: • 80°C • PVC insulation • Sold in 100' units
• CSA: TR-64 • UL style: 1007
• Temperature range: -40°C to +80°C

Part No.	Product No.	Gauge (AWG)	Strands (No. X AWG)	Color	Weight (lbs.)	100 ft.
126084	223SBK/C	22	7x30	Black	0.4	$3.95
126033	223SR/C	22	7x30	Red	0.4	3.95
126076	223SW/C	22	7x30	White	0.4	3.95
125840	203SBK/C	20	10x30	Black	0.6	4.95
125794	203SR/C	20	10x30	Red	0.6	4.95
125831	203SW/C	20	10x30	White	0.6	4.95
125786	183SBK/C	18	16x30	Black	0.8	5.95
125735	183SR/C	18	16x30	Red	0.8	5.95
125751	183SW/C	18	16x30	White	0.8	5.95

22 AWG Solid Hook-up Wire

600 Volts: • 105°C • PVC insulation
• Temperature range : -55°C to +105°C • Tinned copper
• MIL-W-16878D Type B • Passes UL VW-1 flame test
• For use with breadboards such as the JE20 series (pg 85)
• Weight: 100' (0.3 lbs.); 1000' (3.8 lbs.)

Part No.	Product No.	Color	100 ft.	Part No.	Product No.	Color	1000 ft.
36767	122BE/C	Blue	$3.95	36775	122BE/K	Blue	$29.95
36791	122BK/C	Black	3.95	36804	122BK/K	Black	29.95
36821	122G/C	Green	3.95	36839	122G/K	Green	29.95
36855	122R/C	Red	3.95	36863	122R/K	Red	29.95
36880	122W/C	White	3.95	36898	122W/K	White	29.95
36919	122Y/C	Yellow	3.95	36927	122Y/K	Yellow	29.95

28 AWG Modular Telephone Cable
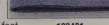
• Color coded • Flat modular cable • PVC jacket 103430
• Silverm • 7 x 43 stranded • Wt.: 0.02 lbs. per foot

Part No.	Product No.	Conductors	100 ft.	1000 ft.
103430	MTC4	4	$3.30	$30.00
103448	MTC6	6	8.00	50.00
103450	MTC8	8	11.00	70.00

28 AWG Gray Flat Ribbon Cable*

• Ideal for use with: insulation displacement DIP jumpers, card-edge connectors and socket connectors. See pages 45-47 • Single edge red stripe for pin 1 orientation • Weight: 0.08 lbs. per foot 103481
• Insulation: Polyvinyl chloride (PVC) • Voltage rating: 300V • Center spacing: .05"
• Temperature rating: -20°C to +80°C • Stranded copper wire • 28 AWG (7 x 36)

Part No.	Product No.	Conductors	25 ft.	100 ft.	500 ft.
135538	171-10	10	$3.50	$10.00	$40.00
37671	171-16	16	4.50	12.50	57.00
37719	171-20	20	5.25	16.00	75.00
37760	171-25	25	8.00	20.00	92.00
37807	171-26	26	8.50	20.50	95.00
37840	171-34	34	10.50	27.00	127.00
37911	171-37	37	12.25	30.00	140.00
37920	171-40	40	12.75	32.00	153.00
37954	171-50	50	17.00	40.00	190.00
103481	171-60	60	18.75	54.00	230.00
100781	PS2- 44	44 (2mm cable for IBM PS/2)	Closeout		.59/ft.

*Must be ordered in increments of 25', 100' or 500'

28 AWG Multicolor Flat Ribbon Cable*

• Ideal for use with: insulation displacement DIP jumpers, card-edge connectors, socket connectors and IDC connectors 105718
• Standard 10 color repeat sequence • Center spacing: 0.05"
• Temperature rating: -20°C to +80°C • Voltage rating: 300V • Wt.: .07 lbs./ft.
• Insulation: Polyvinyl chloride (PVC) • Stranded copper wire • 28 AWG (7 x 36)

Part No.	Product No.	Conductors	25 ft.	100 ft.	500 ft.
112547	28RC10	10	$5.00	$17.50	$75.00
105671	28RC16	16	8.00	24.00	110.00
105689	28RC20	20	10.00	30.00	135.00
105697	28RC25	25	12.50	36.50	165.00
105700	28RC34	34	17.00	51.00	225.00
105726	28RC40	40	20.00	67.00	300.00
105718	28RC50	50	25.00	73.00	330.00

*Must be ordered in increments of 25', 100' or 500'

24 AWG 300V 2 Conductor Stranded Power/Speaker Cable

Reduced Pricing
• Operating voltage: 300 • Temperature rating: 20°C to 60°C
• Stranded copper wire (7 x 32) • Black wire with white polarity stripe

Part No.	Product No.	Color	Wt. (lbs.)/ft.	100 ft.	Part No.	Product No.	Color	Wt. (lbs.)/ft.	1000 ft.
100280	224BK/C	Black	0.8	$4.49	100298	224BK/K	Black	7.8	$29.95

24 AWG Twisted Pair Cable SALE

300 Volts: • 80C° • PVC insulation
• Stranded tinned wire (7 x 32) • Reduced EMI
• Use for hook up wire • Weight: 100' (0.5 lbs.); 1000' (4.7 lbs.)

Part No.	Product No.	Color	100 ft.	Part No.	Product No.	Color	1000 ft.
105911	224GW/C	Green/White	$4.49	105806	224GW/K	Green/White	$23.95

Modular Data Network Cable
24 AWG UTP Category 5

(For assembled cables, see pg 120)
• 100MHz • Color: gray • 8C • 4 twisted pairs 118130
• Insulation: polyethylene • Nom. OD.: .189" • Nom. impedance: 100Ω
118130: Uses modular plug P/N 79281 (pg 48)
118113: Uses modular plug P/N 119343 (pg 48)

Part No.	Description	Wt. (lbs.)/ft.	100 ft.	1000 ft.
118130	Stranded cable, 24 AWG (7/32 stranded)	0.02	$25.00	$170.00
118113	Solid cable, 24 AWG	0.02	15.00	130.00

24 AWG Multiconductor Shielded Computer Communication Cable*

• Stranded copper wire, multi-colored insulation
• Insulated with polyvinyl chloride (PVC)
• 24 AWG (7 x 32) • External color: gray
• Shielded 100% with aluminum mylar
• Separate drain wire • Voltage rating: 300V 31843

Part No.	Product No.	Conductors	Diameter	Weight (lbs.)	25 ft.	100 ft.	1000 ft.
31860	SC4	4	0.20"	.02	$4.75	$14.00	$110.00
31878	SC9	9	0.23"	.03	9.75	25.00	190.00
31843	SC15	15	0.28"	.05	13.75	35.00	250.00
31851	SC25	25	0.37"	.09	17.25	49.00	300.00

*Must be ordered in increments of 25', 100' or 1000'

30 AWG Kynar™ Wire Wrap Wire

• Assorted color coded insulation • Used for prototyping
• Color coded Kynar™ (Polyvindene Fluoride) insulation
• Silver plated copper (solid conductor) • UL 1423
• Temperature: -40°C to +125°C • See pg 43 for ww sockets 22541
• Wire wrap tools below and on pg 86 • Passes UL VW-1 flame test
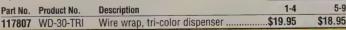
Part No.	Color	Weight (lbs.)	100 ft.	Part No.	Color	Weight (lbs.)	1000 ft.
22541	Blue	0.1	$3.49	22550	Blue	0.6	$19.95
22576	Black	0.1	3.49	22584	Black	0.6	19.95
22630	Red	0.1	3.49	22648	Red	0.6	19.95
22664	White	0.1	3.49	22672	White	0.6	19.95
22605	Green	0.1	3.49	22613	Green	0.6	19.95
22699	Yellow	0.1	3.49	22701	Yellow	0.6	19.95

30 AWG Tri-Color Wire/Dispenser

Quickly cuts, strips and dispenses wire from three separate spools. See page 86 for Wire-Wrapping Tool
• Includes three 50' spools of 30 AWG wire (blue, white and red) and push button cutter • Wt.: 0.2 lbs./ft.

Part No.	Product No.	Description	1-4	5-9
117807	WD-30-TRI	Wire wrap, tri-color dispenser	$19.95	$18.95

14-22 AWG IDC Wire Connectors

• Connects two to three wire ends or splice one line & one lead
• Insulated snap cover for a secure splice 140716
• Insulates the connection • Weight: .004 lbs.
• Color coded for easy identification

Part No.	Color	Gauge (AWG)	1-99	100-999	1000+
140724	Blue	18-14	$.09	$.07	$.06
140716	Red	22-18	.09	.07	.06

Piezo Audio Signal Device

- Single tone
- 3-28VDC @ 20mA max operation
- Top mounting via mounting nut or base mounting via screw holes
- 4.5" color coded connector wires
- Two 0.6" screws with washers and nuts
- 1.35" mounting hole spacing • Size: 1.0"H x 1.1"Dia.

Part No.	Description	1-9	10-99	100+
76021	Piezo audio signal device...	$2.75	$2.25	$1.49

Audible Signal Devices

- Single tone
- Turns on and off with low power transistor, SCR or IC
- Can be battery operated 6-28VDC
- Solid-state – no moving parts
- Panel mounts in 1.25" round hole
- Black plastic case – includes mounting nut
- Current: 15mA • 80dB
- Frequency: 2900Hz ±300
- Size: 1.4"H x 1.7"Dia. • Color: black
- P/N 32601 single tone constant audio output pulsed
- P/N 123537 dual tone constant audio output pulsed audio output (terminal selected)

Part No.	Product No.	Output Tone	1-9	10-99	100+
32601	S3240★	Single	$4.49	$3.75	$2.95
123537	D3240	Dual	3.95	3.25	1.95

Jameco Micro Mini Alarm Siren

- Operating range: 6-12VDC
- Sound output: 105dB
- 250mA current
- White plastic housing
- 16.5" color coded connector wires, tinned
- Size: 2.8" dia. x 2.0" depth

Part No.	Product No.	Description	1-9	10-24
102488	SS20	Micro alarm siren...	$9.95	$8.95

400Hz Mini-Buzzer

- Operates on 9-15VDC
- Output frequency: 400Hz
- Rated 12VDC @ 25mA
- Sound: 75dB • Wire leads: 4.5"L
- Size: 1.3"L x 0.7"W x 0.6"H
- 1.1" mounting hole spacing • Color: black

Part No.	Product No.	Description	1-9	10-99	100+
140695	MB7	Mini-buzzer...	$1.39	$1.15	$.89

800Hz Mini-Buzzer

- Operates on 6-9VDC
- Output frequency: 800Hz
- Draws only 30mA @ 9VDC
- Sound: 80dB • Color: black
- Size: 1.3"L x 0.6"H • 1.1" mounting hole spacing

Part No.	Product No.	Description	1-9	10-99	100+
24871	MB6★	Mini-buzzer...	$1.39	$1.15	$.89

Jameco 40kHz Ultrasonic Sensors

- Case: aluminum flower
- Frequency: 40kHz ±1.0kHz

136653 Transmit/Receive
- Capacitance: 2000pƒ ±30%
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40 ±1.0kHz (0dB+0.0002 µbar) / 10V SN/cm/min.
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40 ±1.0kHz (0dB vs 1V µbar) R=3.9kΩ
- Lead length/spacing: 0.39"
- Case size: 0.47"H x 0.62" Dia.

139491 Transmit/Receive
- Capacitance: 2000pƒ ±20%
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz (0dB+0.0002 µbar) / 10V SN/30cm/min. • Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V µbar) R=3.9kΩ • Lead length/spacing: 0.28"
- Case size: 0.30"H x 0.43" Dia.

Part No.	Product No.	Description	1-9	10-99	100+
136653	40TR16F	Sensor set...	$6.95	$6.25	$4.95
139491	40TR12B	Sensor set...	7.95	6.95	5.95

Electromechanical Buzzer

- Ideal for use in alarms and timers
- Sound output: 80dB
- Sturdy metal case
- Operating range: 9VDC @ 220mA
- Fast-on terminals • Size: 1.3"H x 2.0"Dia.

Part No.	Product No.	Description	1-9	10-99	100+
105822	CLB27	9V buzzer...	$.75	$.59	$.45

Piezo Buzzers FTP
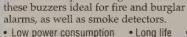
These devices were developed with driver circuits so that they can easily be used by applying a DC voltage source.

The clear and penetrating sound make these buzzers ideal for fire and burglar alarms, as well as smoke detectors.

- Low power consumption • Long life • High sound pressure level

Part No.	Mounting Method	Operating Voltage (DC)	Frequency (kHz @ dB)	Tone Nature	Size (D" x H")	Wt. (lbs)	1-9	10-99	100+
138712	2 pins	12V @ 7mA	4.0 @ 80	Single	.53 x 0.3	.002	$2.25	$1.95	$1.49
76064★	2 pins	5V @ 30mA	2.3 @ 85	Single	.50 x 0.4	.004	2.95	2.49	1.75

Piezo Transducers

External Drive (Sine and Square Wave)

- External drive required
- Sinwave (Vrms) or square wave (Vp-p)
- Applications: alarms, smoke detectors, home appliances, radio beepers, electronic games, keyboard signalers, cameras and telephone ringers
- Low power consumption • Long life • High sound pressure level

Part No.	Mounting Method	Max. Input Voltage	Cap. (nF)	Freq. (kHz)	SPL (dB)	Size (D" x H")	Wt. (lbs)	1-9	10-99	100+
138771	2 wire	13Vrms	25	4kHz	85dB	1.18 x .19	.009	$1.25	$.99	$.69
138763	2 PC	13Vrms	15	4kHz	80dB	0.87 x .27	.006	1.25	.99	.69
138755	2 PC	19Vp-p	12	4kHz	80dB	0.65 x .28	.004	1.25	.99	.69
138747	2 tabs	13Vp-p	30	2kHz	70dB	.88W x.28D x1.06H	.006	1.39	1.15	.89

SONITRON Miniature Buzzer

Low power consumption yields high sound output from this compact buzzer. Use for: portable gas detectors, measuring, medical and alarm equipment, and more!

- Small size allows direct circuit board connection
- Mount by soldering or screws
- Solvent resistant
- No damage result from reverse voltage hookup
- Screw hole diameter: 34.5mm (1.4")

Part Number	Product Number	Case Dia. (mm) (inch)	Height. (mm) (inch)	Nom (mW)	Max (W)	SPL (dB)	Freq. Range (Hz ±15%)	Pin Spacing (mm)	Net Wt. (lbs)	1-9	10-99	100+
137517	SM2B	30 / 1.2	10 / 0.4	.45	.154	84	3500	17.5	.03	$.75	$.59	$.39

Table header spanning: Dimensions (Case Dia., Height.), Input (Nom, Max)

Single Tone Magnetic Buzzers (External Drive Required)

- Applied voltage: 1/2 duty, square wave
- Applications: counters, monitors, scanners, computer, peripheral equipment, also in fire and burglar alarms and smoke detectors
- High sound level and low input voltage FTP
- Low power consumption • Long life

Part No.	Frequency (Hz @ dB)	Rated Voltage	Mounting Method	Size (D" x H")	Weight (lbs.)	1-9	10-99	100+
138721	2048 @ 80	1.5	2 PC pins	.46 x .32	.003	$1.25	$.99	$.69
138739	2048 @ 80	5.0	2 PC pins	.46 x .35	.003	1.49	1.25	.85
106500	3200 @ 80	1.5	2 PC pins	.48 x .40	.005	1.75	1.49	1.25
114606	3500 @ 80	1.5	5" lead	.48 x .34	.004	.89	.69	.49

Omnidirectional Electret Condenser Microphone Cartridges

Applications:

- Telephone and answering devices • Built-in microphones for tape recorders
- Intercoms • Omnidirectional • Modems for computers
- Completed microphones for recording, testing, and monitoring
- Hearing aids • Sonic controlled toys and sensors
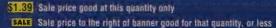
Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	1-9	10-99	100+
112352	Panasonic WM-34CX	-46 ±3dB	Low	20-12,000	12V	4.5V	0.8mA	-3dB @ 3V	>40dB	Solder pad	.30" x .83"	$.69	$.59	$.49
136573	Panasonic WM-60PC	-54 ±2dB	Low	20-12,000	1.5-12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.79	.69	.49
116505	Panasonic WM-54PC★	-44 ±2dB	Low	20-16,000	10V	2.5V	0.6mA	-3dB @ 2V	>60dB	PC pin leads	.20" x .38"	.89	.75	.65
137437	Panasonic WM-62A	-45 ±4dB	Low	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	Solder pad	.12" x .24"	1.95	1.75	1.15
140986	CRM919	-64 ±3dB	1kΩ ±30%	20-10.000	1.5-12V	3.0V	0.8mA	-3dB @ 3V	>40dB	Solder pad	.90" x .39"	1.49	1.25	.99

JAMECO $1.39 SALE Sale price good at this quantity only
Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
99.7% Stock Availability!

Jameco Round Ferrite Type Speakers

Designed for a wide range of audio electronics. For speaker wire, see page 51.

- Pre-tinned speaker lugs • Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm (except P/N 122024: Myiar)

135589 front   135589 back

Part Number	Product Number	Dimensions Dia. (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	Imp (Ω)	SPL (dB)	Frequ. Range (Hz)	Magnet Size (Dia.xTxH) (mm/inch)	Net Wt. (lbs.)	Price 1-9	10-49	50-99
122024	FE100	29 1.1	9.3 0.4	.1	.2	8	80	500 to 8000	16x5x1.7 0.6x0.2x0.07	.02	$1.19	$.95	$.59
135589	FE200	50 2.0	17.8 0.7	.2	.4	8	83	420 to 5000	32x18x6 1.3x0.7x0.2	.08	1.19	.95	.59
10840	FE201	57 2.2	17.8 0.7	.2	.4	8	88	400 to 4500	32x18x6 1.3x0.7x0.2	.11	1.19	.95	.75
135714	FE202	66 2.6	19.5 0.8	.3	.5	8	88	340 to 4000	32x18x6 1.3x0.7x0.2	.13	1.35	1.09	.85

Jameco Round Alnico Type Speakers

- For computer case use • Paper diaphragm
- Wide frequency response
- Large magnet

135773 front   135773 back

Part Number	Product Number	Dimensions Dia. (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	Imp (Ω)	SPL (dB)	Frequ. Range (Hz)	Magnet Size (Dia.xH) (mm/inch)	Net Wt. (lbs.)	Price 1-9	10-49	50-99
135749	A0102	40 1.6	15.8 0.6	.1	.2	8	74	640 to 5000	13x10 0.5x0.4	.05	$1.95	$1.59	$1.39
88410	A0200	50 2.0	19.0 0.8	.2	.4	8	87	430 to 4500	13x10 0.5x0.4	.09	1.95	1.59	1.19
135757	A0200C	50 2.0	19.0 0.8	.4	.7	8	86	540 to 4000	13x10 0.5x0.4	.06	1.75	1.49	.99
135765	A0201C	57 2.2	19.5 0.8	.3	.5	8	87	400 to 4000	13x10 0.5x0.4	.07	1.75	1.49	.99
135773	A0202C	66 2.6	21.5 0.8	.5	1	8	88	320 to 5000	13x10 0.5x0.4	.10	1.75	1.49	1.25
109794	A0303	92 3.6	26.3 1.0	.2	.4	8	90	500 to 8000	22x11 0.9x0.4	.15	Closeout		.75

Flat Magnet Square Piezo Speakers

- Excellent for alarms or other voice uses
- Square frame
- Stainless steel diaphragm

76030 front & back

Part Number	Product Number	Dimensions Dia. (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	Imp (Ω)	SPL (dB)	Frequency Range (Hz)	Net Wt. (lbs)	Price 1-9	10-49	50-99
34024	AZ30S	36 1.4	5 0.2	.4	.8	8	70	1300-8000	.01	$1.95	$1.59	$1.39
76030	AZ40S	47 1.9	5 0.2	.4	.8	8	70	600-6000	.02	1.95	1.59	.99
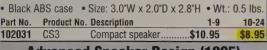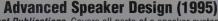
Jameco Communications Speaker w/ Magnetic Mount
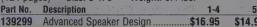
- Maximum input: 8 watts • Frequency range: 200 - 18,000Hz
- Impedance: 8Ω • Includes 3' cord with 3.5mm male plug
- Black ABS case • Size: 3.0"W x 2.0"D x 2.8"H • Wt.: 0.5 lbs.

Part No.	Product No.	Description	1-9	10-24
102031	CS3	Compact speaker	$10.95	$8.95

Advanced Speaker Design (1995)
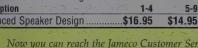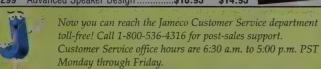
Prompt Publications Covers all parts of a speaker system: subwoofers, crossovers, driver parameters, computer-aided speaker design, and more. Complete easy-to-understand plans for constructing 7 speaker systems. Quality graphics and dimension diagrams. For the hobbyist and technician. (124 pages) • Size: 6" x 9" • Weight: 0.4 lbs.

Part No.	Description	1-4	5-9
139299	Advanced Speaker Design	$16.95	$14.95

Now you can reach the Jameco Customer Service department toll-free! Call 1-800-536-4316 for post-sales support. Customer Service office hours are 6:30 a.m. to 5:00 p.m. PST Monday through Friday.

Jameco Square Ferrite Type Speakers

Designed for a wide range of audio electronics. For speaker wire, see pg 51.

- Pre-tinned speaker lugs • Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm • Wide frequency response

99995 front   99995 back

Part Number	Product Number	Dimensions Dia. (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	Imp (Ω)	SPL (dB)	Frequ. Range (Hz)	Magnet Size (Dia.xTxH) (mm/inch)	Net Wt. (lbs)	Price 1-9	10-49	50-99
135693	FEB200	50 2.0	17 0.7	.2	.4	8	82	400 to 5000	32x18x6 1.3x0.7x0.2	.12	$1.19	$.95	$.75
135685	FEB202	66 2.6	20 0.8	.3	.5	8	85	330 to 4000	32x18x6 1.3x0.7x0.2	.13	1.65	1.35	1.15
31958	FEB216	66 2.6	20 0.8	.2	.4	16	85	330 to 8000	32x18x6 1.3x0.7x0.2	.14	1.75	1.49	1.29
99995	FEB204	66 2.6	23 0.9	3	4	8	95	300 to 14000	45x22x8 1.8x0.9x0.3	.29	1.95	1.59	1.39

Jameco Square Alnico Type Speakers

- For computer case use
- Pretined solder lugs
- Anodized • Paper diaphragm

135790 front & back

Part Number	Product Number	Dimensions Dia. (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	Imp (Ω)	SPL (dB)	Frequ. Range (Hz)	Magnet Size (Dia.xH) (mm/inch)	Net Wt. (lbs)	Price 1-9	10-49	50-99
111587	B0102	42 1.7	16 0.6	.1	.2	8	80	650 to 8000	13x10 0.5x0.4	.05	$1.95	$1.59	$1.39
135781	B0200	50 2.0	19 0.8	.2	.4	8	80	430 to 4000	13x10 0.5x0.4	.09	1.95	1.59	1.39
135790	B0202	66 2.6	21 0.8	.3	.5	8	84	350 to 4000	13x10 0.5x0.4	.13	2.09	1.75	1.49
135802	B0300	77 3.0	23 0.9	.5	1	8	82	260 to 8000	13x10 0.5x0.4	.12	2.25	1.89	1.49

Jameco Oval Alnico Type Speakers

- For computer case use
- Imp: 8Ω • Paper diaphragm
- For rectangular openings

135811 front   135811 back

Part Number	Product Number	Dimensions Diameter (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	Imp (Ω)	SPL (dB)	Frequ. Range (Hz)	Magnet Size (Dia.xH) (mm/inch)	Net Wt. (lbs)	Price 1-9	10-49	50-99
135811	A1527C02	41x72 1.6x2.8	30 1.2	2	5		82	450 to 20000	13x12 0.5x0.5	.13	$3.49	$2.95	$1.95
135829	D0133	48x72 1.9x2.8	25.2 1.0	.5	1		84	450 to 5000	13x10 0.5x0.4	.11	3.49	2.95	2.25

Samarium Cobalt Metal Frame Low Profile Speakers

- Round frame • Anodized • Ultra thin
- Paper diaphragm • Solder tabs

135642 front & back

Part Number	Product Number	Dimensions Dia. (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	Imp (Ω)	SPL (dB)	Frequ. Range (Hz)	Magnet Size (Dia.xH) (mm/inch)	Net Wt. (lbs)	Price 1-9	10-49	50-99
135634	MSC298	40 1.6	6.9 0.3	.3	.5	8	80	430 to 6000	12.5x1.5 0.5x0.6	.02	$3.49	$2.95	$2.65
135626	MSC299	50 2.0	8.5 0.3	.3	.5	8	85	550 to 5000	12.5x1.5 0.5x0.6	.03	3.49	2.95	2.25
135642	MSC300	57 2.2	11.5 0.5	.3	.5	8	86	480 to 5000	12.5x1.5 0.5x0.6	.04	3.49	2.95	2.65

Jameco P.C. Mountable Speakers

- Frame: P/N 135722: round; P/N 135731: square
- Imp: 8Ω • Mylar diaphragm • Solder leads
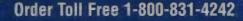
135722   135731

Part Number	Product Number	Dimensions Diameter (mm)(inch)	Height (mm)(inch)	Input Nom (W)	Max (W)	SPL (dB)	Frequ. Range (Hz)	Pin Spacing (mm)	Net Wt. (lbs)	Price 1-9	10-49	50-99
135722	PCM41S	29.85 1.2	12.7 0.5	.150	.200	82	700 to 5000	15.0	.02	$1.75	$1.49	$1.29
135731	PCM35SO	35x32 1.4x1.3	5 0.2	.200	.300	80	450 to 3500	4.4	.01	3.49	2.95	2.65

12VDC Continuous Tubular Push Solenoid NEW
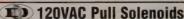
- Voltage: 12VDC
- Tubular push type
- Coil resistance: 36Ω (±10%)
- Nominal voltage & current: 12VDC @ 333mA
- Power consumption: 4W • Holding force: 0.63 lbs.
- Size: 2.1"L x 0.4"Dia. • Weight: 0.05 lbs.

Part No.	Description	1-9	10-24	25-49
145306	Continuous solenoid	$9.95	$8.95	$7.95

GUARDIAN 12VDC Intermittent Pull Solenoid

- Open case style • Pull type
- Coil turns: 1096
- Typical coil resistance: 11.9Ω
- Holding force: 5 lbs.
- Power: 13.5W at maximum input power
- 0.188" quick connect terminals
- Plunger pull in time: 70ms, fall out: 50ms
- Casing size: 1.2"L x 1.2"W • Weight: 0.2 lbs.

Part No.	Description	Price
131991	Intermittent solenoid	Closeout $4.95

12VDC Intermittent Pull Solenoids

- Pull type • Open case style
- Casing size: 1.1"L x 0.8"W • 6" leads

Specifications:	135950	136071
Coil resistance	11.5Ω	14.8Ω
Min. quiet pull force	22 oz./0.1"	16 oz./0.1"
Weight (lbs.)	0.2	0.1

Part No.	Description	1-9	10-24	25-49
135950	12VDC solenoid	$2.95	$2.49	$2.25
136071	12VDC solenoid		Closeout	2.49

12VDC Continuous Tubular Push/Pull Solenoid NEW

- Voltage: 12VDC
- Tubular push/pull type
- Coil resistance: 36Ω (±10%)
- Nominal voltage and current: 12VDC @ 135mA
- Power consumption: 4W
- Holding force: 0.63 lbs.
- Size: 1.1"L x 0.5"Dia. • Weight: 0.05 lbs.
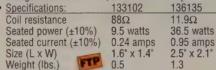
Part No.	Description	1-9	10-24	25-49
145314	Continuous solenoid	$12.95	$11.49	$9.95

120VAC Pull Solenoids

P/N 133102 – Continuous,
P/N 136135 – Intermittent
- 120VAC • Pull type
- 60Hz operation
- Coil Class A (105°C)
- Plunger: laminated steel, zinc dichromate plated

Specifications:	133102	136135
Coil resistance	88Ω	11.9Ω
Seated power (±10%)	9.5 watts	36.5 watts
Seated current (±10%)	0.24 amps	0.95 amps
Size (L x W)	1.6" x 1.4"	2.5" x 2.1"
Weight (lbs.)	0.5	1.3

Part No.	Description	1-9	10-24	25-49
133102	Continuous solenoid	$4.95	$4.49	$3.49
136135	Intermittent solenoid		Closeout	4.95

12VDC Tubular Pull Solenoid

- Voltage: 12VDC
- Pull type
- Coil resistance: 36Ω
- Nominal current: 333mA
- Power consumption: 4W
- Holding force: 0.6 lbs.
- Size: 1.6"L x 1.4"Dia. • Weight: 0.04 lbs.

Part No.	Description	1-9	10-24	25-49
142463	12VDC solenoid	$5.49	$4.95	$4.49

Magnetec 12VDC Continuous Pull Solenoid

- 12VDC
- Pull type
- Open case style
- Holding force: 3.1 lbs.
- Power: 4.5 watts
- Typical coil resistance: 46.7Ω
- Case size: 1.2"L x 0.8"W
- Weight: 0.2 lbs.

Part No.	Description	1-9	10-24	25-49
144178	12VDC solenoid	$4.95	$4.49	$3.25

24VDC Tubular Pull Solenoid

- 24VDC
- Pull type
- Typical coil resistance: 121Ω
- Coil gauge: 34 AWG
- Coil turns: 2570
- Weight: 0.4 lbs.

Part No.	Description	1-9	10-24	25-49
128557	24VDC solenoid	$4.95	$4.49	$3.25

DELTROL "D" Frame Pull Solenoid

- Voltage: 24VDC
- Resistance: 31Ω
- Power: 19 watts
- Treatment: plastic encapsulation; Class A rating (standard)
- Maximum operating temp.: Class A – 105°C (221°F)
- Dielectric strength: 30V and under: 500 VRMS; over 30V: 1000 VRMS plus 2X rated voltage for one minute • Dimensions: 1.9"L x 1.4"W x 1.2"H
- Weight: 0.4 lbs.
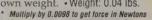
Part No.	Description	1-9	10-24	25-49
131351	24VDC solenoid	$3.95	$3.49	$2.49
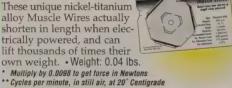
MONDO·TRONICS *Muscle Wire and Accessories*

Muscle Wires

These unique nickel-titanium alloy Muscle Wires actually shorten in length when electrically powered, and can lift thousands of times their own weight. • Weight: 0.04 lbs.
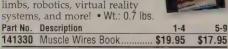
How it works... Pressing the switch lets power flow from the batteries through the Muscle Wire, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire cools and relaxes, and the weight helps it return to its starting position.

* Multiply by 0.0098 to get force in Newtons
** Cycles per minute, in still air, at 20° Centigrade

Part No.	Description	Wire Diameter (microns)	Linear Resistance (ohm/m)	Typical Current (mA)	Deform Weight* (grams)	Recovery Weight* (grams)	Typical Rate**	Length (meters)	1-4	5-9
141882	Flexinol 050LT	50	510	50	8	35	46	1	$17.95	$15.95
141321	Flexinol 100LT	100	150	180	28	150	33	1	17.95	15.95
141874	Flexinol 150LT	150	50	400	62	330	20	1	19.95	17.95

Muscle Wires Project Book

Get the facts behind the unusual properties of Muscle Wires. Study their uses in heat engines, industrial, medical and aerospace applications, electronic and mechanical devices, prosthetic limbs, robotics, virtual reality systems, and more! • Wt.: 0.7 lbs.

Part No.	Description	1-4	5-9
141330	Muscle Wires Book	$19.95	$17.95

Muscle Wires Book & Deluxe Kit

- Includes Flexinol, crimps and instructions

Part No.	Description	1-4	5-9
141348	Muscle Wires kit	$59.95	$53.95

Electric Pistons (Deluxe 5-Pack)

The Electric Piston is a shape memory alloy actuator that pulls with up to one pound of force and contracts by 20mm. Typical activation requires just one volt at five amps for two seconds. Plus, mount several pistons in parallel for more strength, and in series for longer strokes.
- Pack includes five pistons, battery, leads and plans for four complete projects • 1 volt @ 5 amps • Weight: 0.3 lbs.

Part No.	Description	1-4	5-9
141903	Electric piston pack	$39.95	$35.95

Space Wings Kit

Sleek silvery mylar wings flap silently using only five centimeters of Muscle Wire. Stands 15 cm tall and flaps up to 36 times per minute. "No, it really doesn't fly." Includes a printed circuit board, parts and detailed instructions.
- Assembly requires soldering iron, solder, screw driver, wire cutters and two AA batteries (not included) • Weight: 0.06 lbs.

Part No.	Description	1-4	5-9
141313	Space wings kit	$19.95	$17.95

Nitinol Live Wire

Colorful packaged Ni-Ti wire for use with just hot and cold water! Moves with surprising force and speed. Makes a fascinating and captivating hands-on classroom demonstration.
- 450 micrometer diameter
- Length: 7.5 cm
- Set of three packages • Weight: 0.05 lbs.
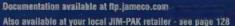
Part No.	Description	1-9	10-24
141891	Nitinol live wire pack	$9.95	$8.95

Bipolar and Unipolar Stepper Motors

FTP

New unipolar stepper motor driver chip - see page 12!

Fig. 1   Fig. 2   Fig. 3   Fig. 4

Features:
- Excellent for precision control
- Unipolar and bipolar motors available
- Can be operated in forward/reverse mode
- Excellent torque/size ratio
- P/N 25216 (MC3479P pg 10) biphase stepper motor driver can be used to operate P/N 105881 stepper motor
- Wide variety of supply voltages • Data sheet included • See pages 64-68 for compatible power supplies

Part Number	Product Number	Fig.	Step Angle	No. of phases	Drive System	Voltage (VDC)	Phase resistance (Ohms)	Current (mA)	Phase Inductance (mH)	Detent torque (g-cm)	Holding torque (g-cm)	Mounting hole space diagonal (in.)	Mounting hole (in.)	Shaft diameter (in.)	Shaft length (in.)	Motor diameter (in.)	Motor height (in.)	Weight (lbs.)	1-9	10-24	25-49
124100	KP56KM1	1	0.9°	2	Bipolar	1.3	1.9	1000	5	35	280	2.60	0.10	0.250	0.53	2.25	2.65	1.00	Closeout		$4.49
130112	23LQC202	1	0.9°	2	Bipolar	1.9	3	750	5	35	280	1.77	0.19	0.250	1.25	2.22	1.65	1.00	3.95	3.49	1.95
114833	HD235746	2	15°	2	Bipolar	5	22	220	5.5	3.5	27	1.20	1.15	0.125	.4/.48	1.10	0.64	0.09	Closeout		1.95
117954	LB82773-M1	4	7.5°	2	Bipolar	5	6.25	800	7.0	100	1080	2.60	1.95	0.250	0.75	2.25	0.99	0.61	Closeout		5.95
105881	SM4203	3	3.6°	2	Bipolar	12	25	480	31	80	600	1.73	0.11	0.197	0.43	1.66	1.38	0.55	6.95	5.95	4.25
124097	SM3400	1	1.8°	2	Bipolar	24	53	440	130	135	600	2.56	0.20	0.250	0.73	2.22	1.02	0.75	4.95	3.95	2.95
128629	103-820-024	1	2.0°	4	Unipolar	4.5	66	1000	40	20	180	3.85	0.22	0.375	1.18	3.40	2.45	2.83	Closeout		5.49
105873	SM4202	3	3.6°	4	Unipolar	12	75	150	43	80	504	1.73	0.11	0.197	0.43	1.66	1.35	0.55	4.95	3.95	2.75
105890	SM4200	3	3.6°	4	Unipolar	12	75	150	39	80	600	1.73	0.11	0.197	0.43	1.66	1.35	0.55	6.95	5.95	4.25
128611	103-771-18	1	1.8°	4	Unipolar	24	140	160	68	80	600	1.62	0.20	0.250	0.95	2.22	2.05	1.16	9.95	8.95	7.49

RMV electronics inc **Stepper Motor Control and Data Acquisition Boards** Assembled

- 3 wire serial port (Rx, Tx and GND) configurable to any standard baud rate in the 300-115200 range (N,8,1)   FTP
- Three 8/10/12 bit ports (PA/PB & PC) configurable pin for pin as inputs or outputs
- Edge triggered multiple interrupt pins (IRQH & IRQL)
- Three stepper motor ports with all the necessary logic to implement monophasic, biphasic and half-step stepping modes
- Connectors not included • Includes manual
- Size: 6.0"L x 2.6"W • Weight: 0.2 lbs.
- One-year warranty

Driver Schematic   **109911** Shown with connectors

Suggested Values for Above Circuit:

Part No.	Quantity	Designator	Description	Price
29655	4	R1-R4	1K ohm, 1/4 watt resistor	$.15
30859	4	R5-R8	330 ohm, 1/4 watt resistor	.15
25857	4	Q1-Q4	MJE 3055T transistor	.75
76970	4	D1-D4	1N4003 diode	.06

Part No.	Product No.	Description	Price
109911	JE2328A	8-bit stepper motor control/ADC board	$124.95
112117	JE23210A	10-bit stepper motor control/ADC board	134.95
140484	JE23212A	12-bit stepper motor control/ADC board	149.95

CLIMAX Shaft Couplers and Collars
(For Stepper Motors)

P/N 138288: • Black oxide steel • Two set screws
P/N 106606: Coupler can also be used to adapt the shaft size of a motor, from 0.125" to 0.25"
P/N's 138296, 138309, 138317: • Zinc plated steel • Designed with set screw

106606   138317   138288

Part No.	Product No.	Manufacturer	Description	Outside Diameter	Length	Wt. (lbs.)	Set Screw	1-9	10-99	100+
106606	USC14	Jameco	1/4" coupler	5/8"	0.56"	0.02	N/A	$.99	$.89	$.75
138296	C012	Climax	1/8" collar	11/16"	5/16"	0.01	4-40 x 3/8	.85	.65	.49
138309	C018	Climax	3/16" collar	11/16"	5/16"	0.01	4-40 x 3/8	.85	.65	.49
138317	C025	Climax	1/4" collar	11/16"	5/16"	0.01	4-40 x 3/8	.85	.65	.49
138288	RC025	Climax	1/4" coupler	1/2"	0.75"	0.03	10-32 x 1/8	3.95	3.49	3.25

DC Motors

- DC voltage: 12, except P/N 136119: 2.1 and 132231:10
- Easy to use • Wide voltage range • Bronze bearings
- Great for motor driven projects such as race cars • High RPM
- Save with Ni-Cad rechargeable batteries found on page 58
- A wide selection of compatible battery holders are also available on page 58

136119   133903

Part No.	Product No.	Voltage Range	Current	Terminal Type	RPM (max)	Shaft Dia.	Shaft Length	Size D" x L"	Wt. (lbs.)	1-9	10-99	100-999
136119	NN2732	1.0V to 12.0V	1.25A	.11"/solder	10000	0.09"	0.57"/0.38"	1.08 x 1.47	0.12	$1.49	$1.25	$.79
132231	HC987G	10.0V to 30.0V	4.47A	.187"/solder	18590	0.20"	0.60"	2.02 x 3.35	1.03	4.95	4.49	3.25
129437	VE40320	6.0V to 12.0V	0.04A	.10"/solder	6500	0.08"	0.25"	.90 x 1.60	0.08	Closeout		.99
133903	HC315G	6.0V to 30.0V	0.25A	.10"/solder	15330	0.09"	0.47"	1.10 x 1.20	0.11	1.75	1.49	1.19

RMV electronics inc **Multi Stepper Motor Control Board**

Shown with motors – not included

- Controls four stepper motors independently up to 50V and 2A max.
- Communication with PC via RS232 at 300 to 115200 baud   FTP
- Can be controlled by network through ITC I/O-485 board for controlling up to 128 independent steppers from one serial port
- Acceleration and deceleration modes
- 8 TTL compatible I/O lines • Six-month warranty
- High and low interrupt lines • Weight: 1.4 lbs.
- 11 channel AD converter with 8, 10, or 12 bits of resolution • Size: 8.0"L x 5.1"W x 1.3"H
- DLL and downloadable demo available

Part No.	Description	Price
140492	Multi stepper motor control board	$349.95

6 Piece Gear Set

- Works with DC motors with 0.08" shaft diameter
- Heavy-duty plastic construction
- Pitch: 0.125"
- Weight: 0.3 lbs.

Description	Teeth	Shaft Bore	Press Fit Shaft Dia.	Gear Dia.
T10	10	0.151"	0.156 (5/32)	0.457"
T20	20	0.151"	0.156 (5/32)	0.855"
T30	30	0.151"	0.156 (5/32)	1.239"
T40	40	0.151"	0.156 (5/32)	1.634"
T50	50	0.151"	0.156 (5/32)	2.016"
Bushing	—	0.075"	0.078 (5/64)	0.160"

Part No.	Prod. No.	Description	1-9	10-24	25-49	50+
131801	GA1	6 pc. gear set	$4.95	$4.49	$3.95	$3.25

OWI **One Touch Selectable Gear Box Kit**   NEW

FTP

- One touch slide switch with 6 gear ratio possibilities: 6.8:1 to 807.93:1
- Assembly required; novice difficulty level
- Size: 2.5"L x 1.1"W x 1.5"H
- Weight: 0.3 lbs.

35 pc. Kit

Part No.	Prod. No.	Description	1-4	5-9
145509	OWIGB25	Selectable Gear Box	$14.95	$13.49

Hardware

- Zinc-plated steel
- Sold 100 pcs per bag (min.)

Slotted Pan Head Machine Screws

Part Number	Screw Size	Length/Dia. (inches)	100 (C)	1000 (K)
38172	2-56	1/4	$2.20/C	$14.00/K
143642	4-40	3/16	1.30/C	7.00/K
40951	4-40	1/4	1.40/C	10.00/K
40969	4-40	3/8	1.50/C	11.00/K
106809	4-40	1/2	1.60/C	12.00/K
106542	6-32	1/4	1.60/C	12.00/K
42446	6-32	3/8	2.00/C	13.00/K
42438	6-32	1/2	2.20/C	14.00/K
143634	8-32	1/4	2.20/C	13.50/K
106817	8-32	3/8	2.50/C	14.50/K
106796	8-32	1/2	2.70/C	15.00/K

Flat Washers

106825	4	.281	$1.50/C	$11.00/K
106833	6	.373	1.50/C	11.00/K
106841	8	.377	1.50/C	11.00/K

Internal Tooth Lock Washers

106850	4	.258	$1.00/C	$8.00/K
106868	6	.277	1.00/C	8.00/K
106876	8	.323	1.00/C	8.00/K

Split Lock Washers

106788	2	.161	$1.00/C	$8.00/K
40977	4	.205	.80/C	6.00/K
42462	6	.240	.80/C	6.00/K
51609	8	.279	.90/C	7.00/K

Hex Nuts

38164	2-56	.183	$1.10/C	$8.50/K
40942	4-40	.243	1.10/C	8.50/K
42420	6-32	.306	1.10/C	8.50/K
51553	8-32	.334	1.50/C	11.00/K

Black Internal Threaded Handles

- Black anodized aluminum
- Blind tap depth: 7/16" - 9/16"
- Thread: 8-32
- Diameter: 1/4"

Part No.	Size (L x H)	1-9	10-99	100+
142421	2.0" x 1.0"	$3.95	$2.95	$2.49
142455	2.0" x 1.5"	3.95	2.95	2.49
142447	3.0" x 1.0"	3.95	2.95	2.49
142391	3.0" x 1.5"	3.95	2.95	2.49
142383	4.0" x 1.5"	3.95	2.95	2.49
142439	5.0" x 1.0"	3.95	2.95	2.49
142412	5.0" x 1.5"	3.95	2.95	2.49
142404	6.0" x 1.5"	3.95	2.95	2.49

Standoffs/Spacers Grab Bag

- Perfect for prototyping and educational projects
- Inexpensive way to expand variety of components
- Use our 20 drawer cabinet (with blank white ID labels) to store your components, P/N 81701 (pg 32)

Part Number	Product Number	Description	1-9	10-24
55968	GB140 ★	100 asst. alum. and nylon spacers/standoffs (Sizes 2-56 to 8-32, round & hex)	$5.95	$5.39

Rare Earth Magnet

This magnet has an unusually high energy output volume, yet it is almost immune to demagnetization.
Magnets cannot be shipped by air.

Part No.	Description	1-9	10-99	100+
131334	Magnet, rare earth	$.99	$.75	$.49

Aluminum, Brass and Steel Standoffs

- Material: aluminum – QQ A225/3/8 and A200/9
- Finish: clear iridite per MIL-C5541-C
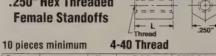
.187" Hex Threaded Female Standoffs

- Aluminum
- 10 pieces minimum

Part Number	Thread Size	Hex Length	10-99	100	500	1000+
143301	2-56	.420"	$.15	$.13	$.10	$.09
143319	2-56	.687"	.15	.13	.09	.08
133612	4-40	.250"	.17	.15	.11	.10
133639	4-40	.500"	.22	.19	.16	.12
139791	4-40	.561"	.22	.19	.09	.06
133647	4-40	.625"	.22	.19	.14	.12
133655	4-40	.750"	.27	.24	.19	.17
139184	4-40	1.00"	.29	.26	.20	.18

.250" Hex Threaded Female Standoffs
10 pieces minimum — 4-40 Thread

Part Number	Material	Hex Length	10-99	100	500	1000+
139192	Aluminum	.250"	$.15	$.13	$.10	$.09
77500	Aluminum	.375"	.15	.13	.11	.10
143360	Aluminum	.413"	.15	.13	.06	.05
134762	Aluminum	.435"	.16	.14	.07	.06
108370	Aluminum	.500"	.17	.15	.13	.11
77518	Aluminum	.625"	.19	.17	.13	.11
143335	Steel	.687"	.22	.19	.13	.11
133604	Aluminum	.750"	.22	.19	.16	.14
143343	Steel	.750"	.25	.22	.15	.13
143386	Aluminum	.875"	.25	.22	.15	.13
139205	Aluminum	1.00"	.29	.26	.23	.19
143327	Steel	1.31"	.35	.29	.17	.15
128573	Aluminum	1.375"	.45	.39	.35	.29

.250" Hex Threaded Female Standoffs
10 pieces minimum — 6-32 Thread

Part Number	Material	Hex Length	10-99	100	500	1000+
77534	Aluminum	.250"	$.15	$.13	$.10	$.09
133591	Aluminum	.375"	.17	.15	.13	.11
143378	Steel	.375"	.19	.17	.12	.10
77542	Aluminum	.500"	.17	.15	.13	.11
77551	Aluminum	.625"	.19	.17	.15	.11
143431	Bevelled alum	.735"	.25	.22	.15	.13
77569	Aluminum	.750"	.27	.24	.21	.16
143351	Aluminum	.875"	.27	.24	.21	.16
77577	Aluminum	1.00"	.29	.26	.20	.17
143394	Steel	1.00"	.35	.29	.17	.15
139803	Aluminum	1.25"	.35	.29	.17	.15
143669	Brass	1.37"	.39	.35	.22	.19
143415	Steel	1.37"	.39	.35	.22	.19
143466	Black Alum.	1.41"	.39	.35	.22	.19
143407	Aluminum	1.50"	.39	.35	.25	.22
143440	Aluminum	1.75"	.39	.35	.22	.19
108345	Steel	1.75"	.45	.39	.32	.29

.250" Hex Threaded Female Standoffs
10 pieces minimum — 8-32 Thread

Part Number	Material	Hex Length	10-99	100	500	1000+
143423	Aluminum	.750"	$.29	$.26	$.20	$.17

.187" Hex Jack Screws

- Yellow chromate finish
- Aluminum
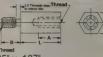
Part Number	Thread Size	Thread Length	1-9	10-99	100-499
133575	4-40	.250"	$.45	$.35	$.25
133583	4-40	.500"	.49	.39	.32

.250" Hex Threaded Male-Female Standoffs

- Thread length (A x B): .25" x .187"
- 10 pieces minimum — 4-40 Thread

Part Number	Material	Hex Length	10-99	100	500	1000+
77585	Aluminum	.250"	$.27	$.24	$.21	$.18
77593	Aluminum	.375"	.29	.26	.19	.17
111755	Aluminum	.500"	.29	.26	.22	.19
139213	Aluminum	.625"	.35	.29	.22	.19
139221	Aluminum	.750"	.35	.29	.22	.19
139230	Aluminum	1.00"	.39	.35	.29	.22
143474	Aluminum	1.13"	.39	.35	.22	.19
128565	Aluminum	1.25"	.39	.35	.22	.19

.250" Hex Threaded Male-Female Standoffs

- Thread length (A x B): .375" x .25"
- 10 pieces minimum — 6-32 Thread
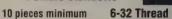
Part Number	Material	Hex Length	10-99	100	500	1000+
133541	Aluminum	.250"	$.27	$.24	$.19	$.17
143458	Steel	.250"	.29	.26	.18	.15
133567	Aluminum	.375"	.29	.26	.20	.18
143482	Aluminum	.437"	.29	.26	.20	.18
77606	Aluminum	.500"	.29	.26	.20	.18
139248	Aluminum	.625"	.35	.29	.22	.19
139811	Aluminum	.689"			Closeout	.12
77622	Aluminum	.750"	.35	.29	.25	.19
77649	Aluminum	1.00"	.35	.29	.25	.19

.250" Hex Threaded Male-Female Standoffs

- Thread length (A x B): .4375" x .375"
- 10 pieces minimum — 8-32 Thread

Part Number	Material	Hex Length	10-99	100	500	1000+
143491	Aluminum	.250"	$.29	$.26	$.18	$.15
143503	Aluminum	.375"	.32	.27	.20	.18
143511	Aluminum	.500"	.35	.29	.21	.19

.250" Jointed Hinged Female Standoffs
10 pieces minimum — 6-32 Thread

Part Number	Material	Overall Length	10-99	100	500	1000+
143520	Brass	.750"	$.49	$.39	$.25	$.19

.250" Round Threaded Female Standoffs
10 pieces minimum — 4-40 Thread

Part Number	Material	Length	10-99	100	500	1000+
143600	Aluminum	.687"	$.15	$.13	$.11	$.07
143626	Steel	.750"	.19	.17	.12	.10
143589	Aluminum	1.00"	.27	.24	.16	.14
143597	Steel	1.00"	.29	.26	.18	.15
143618	Aluminum	1.56"	.35	.29	.21	.19

.250" Round Threaded Female Standoffs
10 pieces minimum — 6-32 Thread

Part Number	Material	Length	10-99	100	500	1000+
143538	Aluminum	.312"	$.15	$.13	$.11	$.07
143571	Steel	.375"	.17	.15	.13	.09
143546	Aluminum	.500"	.17	.15	.13	.09
143562	Steel	1.25"	.29	.26	.23	.15
143554	Aluminum	1.25"	.27	.24	.21	.13

Line, Computer and Power Cords

- Molded connectors
- UL/CSA/VDE approval listed below
- Excellent resistance to jacket abrasion
- Temperature: -20°C to 60°C
- Voltage rating: 300 volts

AWG	Volts	Amps	VA
18	125	10	1250
16	125	12	1500
14	125	15	1875

Fig. 1 Line Cord
Fig. 2 Power Cord
Fig. 3 Computer Power Cord
Fig. 4 Right Angle Computer Cord
Fig. 5 Piggy-Backed Computer Cord
Fig. 6 Power Supply Extension Cord
Fig. 7 Monitor Power Adapter Cord
Fig. 8 Hospital Grade Power Cord
Fig. 9 Euro Style Plug
Fig. 10 RFI Power Cord
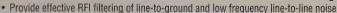
Part Number	Product Number	Description	Weight (lbs.)	Agency Approvals	Figure	Length	Color	AWG	Cord Type	1-9	10-99	100-249
112723	E74713	2-conductor power cord with pigtail	.13	UL/CSA	1	5 ft.	Gray	18/2	SPT-1	$.99	$.79	$.65
124433	ST008	2-conductor power cord with pigtail	.16	UL/CSA	1	5 ft. 2"	Black	18/2	SPT-2*	.99	.79	.55
42041	17106	2-conductor power cord with pigtail	.25	—	1	6 ft.	Black	18/2	SPT-2*	1.15	.99	.79
146309	PC182J6	2-conductor power cord with pigtail	.31	UL/CSA	1	6 ft.	Black	18/2	SJT	1.49	1.25	.99
146317	PC182J8	2-conductor power cord with pigtail	.41	UL/CSA	1	8 ft.	Black	18/2	SJT	1.75	1.49	1.25
37997	17236	3-conductor power cord with pigtail	.30	UL/CSA	2	6 ft.	Black	18/3	SVT	1.95	1.75	1.49
38009	17237	3-conductor power cord with pigtail	.31	UL/CSA	2	6 ft.	Gray	18/3	SVT	1.95	1.75	1.49
38025	17238	3-conductor power cord with pigtail	.39	UL/CSA	2	8 ft.	Black	18/3	SVT	2.95	2.49	2.25
102007	17535B	3-conductor power cord with pigtail	.49	UL/CSA	2	9 ft. 10"	Black	18/3	SVT	2.49	2.25	1.95
100271	17629B	3-conductor power cord with pigtail	.88	UL/CSA	2	9 ft.	Black	14/3	SJT	4.49	3.95	3.49
103747	17248	3-conductor detachable power supply cord	.34	UL/CSA	3	6 ft.	Gray	18/3	SVT	2.95	2.49	1.75
38041	17249	3-conductor detachable power supply cord	.37	UL/CSA	3	6 ft.	Beige	18/3	SVT	2.49	2.25	1.49
38050	17250★	3-conductor detachable power supply cord	.36	UL/CSA	3	6 ft.	Black	18/3	SVT	3.49	2.95	2.25
132118	17500	3-conductor detachable power supply cord	.44	UL/CSA	3	6 ft.	Black	18/3	SJT	3.49	2.95	2.25
142607	WTP-003	3-conductor detachable power supply cord	.63	CSA	3	6 ft.	Black	16/3	SJT	3.75	3.25	2.49
125541	17504	3-conductor detachable power supply cord	.71	UL/CSA	3	6 ft. 7"	Black	14/3	SJT	3.95	3.49	2.75
146069	VM0232S	3-conductor detachable power supply cord w/RFI filter	.73	UL/CSA	10	6 ft. 8"	Gray	18/3	SJT	3.95	3.49	2.95
117583	17502	3-conductor detachable power supply cord	.37	UL/CSA	3	8 ft.	Gray	18/3	SVT	3.49	2.95	1.95
145681	17251	3-conductor detachable power supply cord	.54	CSA	3	8 ft.	Black	18/3	SVT	4.49	3.95	3.49
102023	17501	3-conductor detachable power supply cord	.55	UL/CSA	3	9 ft. 10"	Black	18/3	SVT	3.49	2.95	2.49
78078	17250F	3-conductor detachable power supply cord	.40	CSA	3	8 ft.	Black	18/3	SPT-2*	3.49	2.95	2.25
117356	8120-6177	3-conductor detachable right angle power supply cord	.41	UL/CSA	4	7 ft.	Gray	18/3	SVT	2.95	2.49	2.25
38076	17250R	3-conductor detachable right angle power supply cord	.54	—	4	6 ft.	Black	18/3	SVT	2.95	2.49	1.95
84937	S1184	3-conductor detachable piggy backed computer power cord	.47	UL/CSA	5	6 ft.	Black	18/3	SJT	2.95	2.49	1.75
28468	PEC	3-conductor computer power supply extension cord	.36	UL/CSA	6	6 ft.	Black	18/3	SVT	3.75	3.25	2.25
121291	PEC2	3-conductor computer power supply extension cord	.55	UL/CSA	6	8 ft.	Black	18/3	SJT	3.95	2.95	2.49
26382	MPC6	3-conductor monitor power adapter cord	.40	UL/CSA	7	6 ft.	Black	18/3	SVT	3.95	3.49	2.95
115078	17006	3-conductor power cord w/ hospital grade male plug (green dot)	.84	CSA	8	10 ft.	Black	16/3	SJT	6.95	6.25	5.49
132011	17006G	3-conductor power cord w/ hospital grade male plug (green dot)	.82	CSA	8	10 ft.	Gray	16/3	SJT	6.95	6.25	4.95
117911	FH2-M1095	3-conductor detachable power supply cord. Euro style plug	.38	VDE	9	6 ft.	Black	18/3	VDE	3.95	3.49	2.95
138270	H05VVF	3-conductor detachable power supply cord. Euro style plug	.44	VDE	9	6 ft.	Beige	18/3	VDE	3.95	3.49	2.49

*SPT-2 (Flat Cord) See page 50 for AC Power Cord Ties and below for power line filters

AC Power and RFI Line Filters, Plugs and Sockets

AC Power Filters, Plugs and Sockets

- Provide effective RFI filtering of line-to-ground and low frequency line-to-line noise
- Frequency: 50/60Hz • Switch selectable input voltage switch
- Power entry filters/non-filters are compatible with power cord 38076 (see above)
- Line filters and power outlet are compatible with power cord 37997 (see above)
- 115502 has 3.25" lead wire and ground terminal, with ring terminal for #8 stud
- See page 64 for compatible disconnect and ring solderless terminals
- Note: Terminal position may vary

141217
40601
117444
115502

Part Number	Manufacturer	Product Number	Description	Current (Amps)	Voltage (VAC)	Terminals	Agency Approvals	Terminal Size	A	B	C	D	Weight (lbs.)	1-9	10-49	50-99
40601	Delta	3EF1	Power entry filter, straight	3	250	quick disconnect	UL/CSA/VDE	.25"	1.96	0.85	1.92	1.57	0.11	$4.95	$4.49	$3.49
113890	Delta	03DEEG3B-R	Power entry filter, straight	3	250	quick disconnect	UL/CSA/VDE	.187"	2.45	0.85	2.15	1.57	0.11	1.29	1.09	.99
114112	Delta	03DEEG3E	Power entry filter, straight	3	250	quick disconnect	UL/CSA/VDE	.25"	2.05	0.82	2.10	1.575	0.10	1.95	1.75	1.25
117428	CDE	APFM300CEE	Power entry filter, straight	3	250	quick disconnect	UL/CSA	.25"	1.95	0.85	1.75	1.6	0.08		Closeout	.25
42454	Delta	6EF1	Power entry filter, straight	6	250	quick disconnect	UL/CSA/VDE	.187"	1.96	0.86	2.17	1.57	0.11	5.49	4.95	3.95
115502	Delta	06GENG3ER	Power entry filter (snap-in)	6	240	quick disconnect	UL/CSA/VDE	.25"	1.22	0.95	2.08	N/A	0.11	1.29	1.09	.99
141217	——	CO-1100	Power entry non-filter plug	6	250	solder terminal	UL/CSA/TUV	.27"	1.96	0.89	1.10	1.58	0.03	.99	.79	.59
16651	JEC	JR101	Power entry non-filter plug	10	250	quick disconnect	UL/CSA/VDE	.187"	1.96	0.87	1.11	1.57	0.03	.99	.79	.59
117065	Nicoon	NC185	Power outlet non-filter socket	15	250	quick disconnect	UL/CSA	.25"	1.98	1.13	1.35	1.6	0.03		Closeout	.08
40521	Rong Feng	3AC	Power outlet non-filter socket	15	125	quick disconnect	UL/CSA	.187"	1.06	1.06	1.29	N/A	0.03		Closeout	.10
117444	Schurter	PF11	Power entry non-filter plug, fused	6	250	quick disconnect	UL/CSA	.25"	1.22	1.33	1.18	N/A	0.04	1.29	1.09	.99
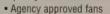
58 **Tube Axial AC Fans**

112387   109874

We carry major manufacturers – call for pricing over 100.
- Low acoustical noise rating • Rating 115VAC @ 50/60Hz
- Rating 220VAC @ 50/60Hz • Manufacturers may vary
- Ball and sleeve bearings • Air flow from 15 to 215 CFM
- Power input by lead wires or terminals
- Agency approved fans

106585   131983

For Fan Guards and Cords – see below

Part Number	Manufacturer	Product Number	Dimensions (In.) W" x H" x D"	Voltage (AC)	Air Flow CFM	Bearing Ball/Sleeve	Current (mA)	Power Watts	Agency Approvals	Noise (dba)	Connection Wires/Terminals	Pricing 1-9	10-49	50+
146077	Toyo Fan	USTF80251153W	3.15 x 3.15 x 1.00	115 VAC	20	Ball	85 mA	5.0	CSA	33	12" lead wires	$12.95	$11.95	$10.95
75408	Fulltech	UF80B12SWH★	3.15 x 3.15 x 1.00	115 VAC	24	Sleeve	140 mA	14.0	UL, CSA, TUV	35	12" lead wires	11.95	10.95	9.95
111915	Fulltech	UF80A12L	3.15 x 3.15 x 1.50	115 VAC	20	Sleeve	110 mA	12.0	UL, CSA	32	12" lead wires	10.95	9.95	8.95
16977	Fulltech	UF80A12BWL★	3.15 x 3.15 x 1.50	115 VAC	25	Ball	110 mA	11.0	UL, CSA, TUV	32	12" lead wires	13.95	12.95	11.95
16969	Fulltech	UF80A12BTL★	3.15 x 3.15 x 1.50	115 VAC	25	Ball	110 mA	11.0	UL, CSA	32	terminals	13.95	12.95	11.95
112387	Fulltech	UF80A12SWH	3.15 x 3.15 x 1.50	115 VAC	30	Sleeve	120 mA	12.9	UL, CSA	36	12" lead wires	11.95	10.95	9.95
102904	Sunon	SF11580A-1083HBL	3.15 x 3.15 x 1.50	115 VAC	31	Ball	130 mA	12.0	UL, CSA, TUV	36	12" lead wires	14.95	13.95	12.95
75432	Sunon	SF11592A-1092HSL	3.63 x 3.63 x 1.00	115 VAC	36	Sleeve	130 mA	12.0	UL, CSA, TUV	39	12" lead wires	13.95	12.95	11.95
75459	Sunon	SF11592A-1092HBT★	3.63 x 3.63 x 1.00	115 VAC	37	Ball	130 mA	12.0	UL, CSA	40	terminals	14.95	13.95	12.95
124062	Sunon	SP101AT1122HBT	4.68 x 4.68 x 1.00	115 VAC	78	Ball	180 mA	18.0	CSA, TUV	46	terminals	13.95	12.95	11.95
118965	Fulltech	UF12A12BTLL	4.68 x 4.68 x 1.50	115 VAC	52	Ball	85 mA	8.4	—	15	terminals	13.95	12.95	11.95
109874	Fulltech	UF12A12STL	4.68 x 4.68 x 1.50	115 VAC	81	Sleeve	110 mA	9.0	UL, CSA	38	terminals	12.95	11.95	10.95
16951	Jameco	FAN2RFE (used)	4.68 x 4.68 x 1.50	115 VAC	90	Sleeve	150 mA	15.0	UL, CSA	39	terminals	5.95	4.95	3.95
16934	Jameco	FAN1★	4.68 x 4.68 x 1.50	115 VAC	90	Ball	190 mA	15.0	UL, CSA	39	terminals	13.95	12.95	11.95
111894	Sunon	SP101A-1123HSL	4.68 x 4.68 x 1.50	115 VAC	105	Sleeve	180 mA	18.0	UL, CSA	48	12" lead wires	11.95	10.95	9.95
106585	Common Wealth	FP108-1-S1	4.68 x 4.68 x 1.50	115 VAC	105	Sleeve	140 mA	12.0	UL, CSA	35	terminals	12.95	11.95	10.95
102883	Sunon	SP100A-1123XBT	4.68 x 4.68 x 1.50	115 VAC	117	Ball	240 mA	20.0	UL, CSA, TUV	50	terminals	14.95	13.95	12.95
141604	Fulltech	UF15P12BTH	6.75 x 5.90 x 2.00	115 VAC	205	Ball	440 mA	33.0	—	55	terminals	24.95	22.49	19.95
100917	Sunon	SF23080A	3.15 x 3.15 x 1.50	220 VAC	30	Sleeve	60 mA	13.5	UL, CSA, TUV	35	12" lead wires	14.95	13.95	12.95
131983	Toyo Fan	UT926A8	3.63 x 3.63 x 1.00	220 VAC	30	Ball	30 mA	8.0	UL	37	terminals	14.95	13.95	12.95
102891	Sunon	DP200A-2123XBT	4.68 x 4.68 x 1.50	220 VAC	117	Ball	140 mA	21.0	UL, CSA, TUV	50	terminals	14.95	13.95	12.95
111801	Etri	148VE-0281-030	6.75 x 5.90 x 1.50	220 VAC	123	Ball	60 mA	14.0	UL, CSA	33	terminals			14.95

Fan Guards, Filters and Cords

Reduced Pricing

Fan Guards and Filters

123502/120037   31923/123511   93323

25734   25726   130104

Fits AC/DC Fans (see above and opposite page)
All guards, screens and filters fit all fans by matching the H" dimension. Example: 18770 fan height is 1.60", 123502 metal guards are 1.60". They fit one another.

Part No.	Description	1-9	10-99	100+
123502	1.60" metal (chrome) guard	$.99	$.79	$.59
120037	2.36" metal (chrome) guard	.99	.79	.59
31923★	3.15" metal (chrome) guard	1.09	.89	.69
123511	3.63" metal (chrome) guard	1.19	.99	.75
93323	3.63" metal (chrome) guard	Closeout		.49
25734★	4.68" metal (chrome) guard	1.19	.99	.75
138561	3.15" plastic filter w/ mesh	1.95	1.69	1.39
25726★	4.68" plastic filter w/ mesh	1.95	1.69	1.39
138579	3.15" aluminum washable filter	2.95	2.49	2.25
130104	4.68" aluminum washable filter	2.95	2.49	2.25

JAMECO Fan Plug Cords

28564   104192

- Cord type: SPT-1 (2) conductor black
- Available in 2 lengths, see below
- Voltage rating: 300V • Fits all terminal fans
- Temperature range: 105°C • Weight: .05 lbs.
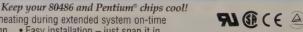
Part No.	Description	1-9	10-99	100+
28564★	Straight 24" fan cord	$1.19	$.99	$.85
104192	90° 24" fan cord	1.25	1.09	.95

Jameco Heat Sink/Fans for 80486/Pentium® Processors

Keep your 80486 and Pentium® chips cool!
- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fan design • Easy installation – just snap it in

Part No.	Description	Wt. (lbs.)	Agency Approvals	1-4	5-9
85497	486 CPU heat sink only	0.05	—	SALE	$2.95
67660★	486 and 586 CPU heat sink with fan	0.1	CSA/CE/TUV	7.95	7.15
112379	486 and 586 CPU heat sink with fan and heat pump	0.2	UL/CE/TUV	49.95	44.95
117348	Heat sink w/ fan for Pentium® 60/66	0.2	UL/CSA/TUV	12.95	11.49
118092	Heat sink w/ fan for 686 and Pentium® 75-166	0.2	CSA/CE/TUV	12.95	8.95
130163	Heat sink w/ fan for 686, Pentium® 75-166 & audible alarm if fan fails	0.2	UL/CE/TUV	SALE	17.95
132097	Heat sink w/ ball bearing fan for 686 and Pentium® 75-166 – square	0.1	UL/CSA/CE/TUV	14.95	13.49
132100	Heat sink w/ screw on ball bearing fan for 686, Pentium® 75-166 – round	0.2	UL/CSA/CE/TUV	SALE	17.95
144864	Heat sink w/ ball bearing fan for Pentium Pro® 150/200 – square	0.3	CE	17.95	15.95
138780	Heat sink w/ fan for Pentium® Pro and audible alarm if fan fails	0.3	UL/CSA/CE/TUV	24.95	22.95

67660   118092   130163

132100   144864

JAMECO $1.39 Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less

FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128

OEM Pricing Available!

We carry major manufacturers – call for pricing over 100.

- Low acoustical noise rating
- Rating 115VAC @ 50/60Hz
- Rating 220VAC @ 50/60Hz
- Manufacturers may vary
- Fan part number 16993 is an ideal replacement for the PC/XT computer power supply fan
- P/N 134586 is a blower type fan
- P/N 109831 is a temperature regulating fan (42°C switch point)

UL CSA CE

† Temp Control: 132476 (40°C); 109831 (35°C) ✓ 3 leads locking rotor output

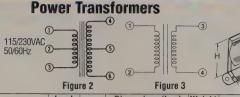| Part Number	Manufacturer	Product Number	Dimensions (In.) W" x H" x D"	Voltage (DC)	Air Flow CFM	Bearing Ball/Sleeve	Current (mA)	Power Watts	Agency Approvals	Noise (dba)	Connection Wires/Terminals	Pricing 1-9	Pricing 10-49	Pricing 50+
131246	Nidec	C34252-55	1.00 x 1.00 x 0.40	5 VDC	1.0	Sleeve	80 mA	0.4	—	22	3" lead wires	$10.95	$9.95	$8.95
142851	Evox-Rifa	0410N-5	1.60 x 1.60 x 0.40	5 VDC	4.2	Ball	190 mA	0.9	—	23	2" lead wires	8.95	7.95	6.95
102921	Sunon	KD0504PFS2	1.60 x 1.60 x 0.40	5 VDC	6.3	Sleeve	160 mA	0.6	UL, CSA	24.3	12" lead wires	9.95	8.95	7.95
100896	Elina	FDC40-05M	1.60 x 1.60 x 0.80	5 VDC	6	Sleeve	370 mA	1.9		27	9" lead wires	9.95	8.95	7.95
133111	Elina	KDA120210MB	1.00 x 1.00 x 0.40	12 VDC	1.7	Ball	90 mA	1.3	UL, CSA	26.5	6" lead wires	12.95	11.95	9.95
102912	Sunon	KD1202PFB2	1.00 x 1.00 x 0.40	12 VDC	2.0	Ball	95 mA	1.2	UL, CSA	24.5	6" lead wires	13.95	12.95	11.95
102939	Innovative	SP401012H	1.60 x 1.60 x 0.40	12 VDC	5.3	Sleeve	80 mA	0.9	UL, CSA, TUV	30	12" lead wires	8.95	7.95	6.95
18770	Sanyo Denki	109P0412B704★	1.60 x 1.60 x 0.60	12 VDC	6	Sleeve	60 mA	0.7	—	22	4" lead wires	6.95	5.95	4.95
136178	Elina	KDA120420L	1.60 x 1.60 x 0.80	12 VDC	4.5	Sleeve	50 mA	0.6	UL, CSA, TUV	19	12" lead wires	6.95	5.95	3.95
75344	Common Wealth	FP108G/DC★	1.60 x 1.60 x 0.80	12 VDC	5.4	Ball	100 mA	1.2	—	25	12" lead wires	8.95	7.95	6.95
132089	United Pro	EC4510	1.77 x 1.77 x 0.40	12 VDC	6	Sleeve	80 mA	0.7	UL, TUV, CE	21	12" lead wires		Closeout	5.95
139601	Elina	KDA120515M	2.00 x 2.00 x 0.60	12 VDC	10	Sleeve	130 mA	1.6	—	27	12" lead wires	8.95	7.95	6.95
104205	Panaflo	FBA06T12L★	2.36 x 2.36 x 0.60	12 VDC	12	Sleeve	130 mA	1.1	—	24	6" lead wires	8.95	7.95	6.95
144160	ADDA	AD0612LB-C70GL	2.36 x 2.36 x 0.80	12 VDC	12.6	Ball	80 mA	0.96	UL, CSA, TUV	22.7	6" lead wires	8.95	7.95	6.95
105291	Nidec	TA225DC-A32313-55	2.36 x 2.36 x 1.00	12 VDC	11	Ball	70 mA	0.8	—	34	6" lead wires	8.95	7.95	6.95
75352	MechaTronics	F6025L12★	2.36 x 2.36 x 1.00	12 VDC	14	Sleeve	85 mA	0.8	UL, CSA	24	12" lead wires	7.95	6.95	5.95
136143	Delta	SB0612M	2.36 x 2.36 x 1.00	12 VDC	17.7	Sleeve	200 mA	1.3	UL, CSA, VDE	26.5	5" lead wires	7.95	6.95	4.95
102947	Sunon	KD1206PTS1	2.36 x 2.36 x 1.00	12 VDC	21.7	Sleeve	190 mA	2.2	UL, CSA, TUV	34	12" lead wires	8.95	7.95	6.95
132476	NMB (Smart Fan)	2410ML-012Q640-00†	2.36 x 2.36 x 1.00	12 VDC	25.1	Ball	300 mA	3.6	UL, CSA	34	12" lead wires	9.95	8.95	7.95
134586	Nidec Blower	A34342-16 (Gamma 28)	2.98 x 2.98 x 1.18	12 VDC	9	Ball	180 mA	2.3	—	47	5" lead wires	7.95	6.95	5.95
109081	Panaflo	FBA08T12H★	3.15 x 3.15 x 0.60	12 VDC	30	Sleeve	200 mA	2.4	—	34	12" lead wires	9.95	8.95	7.95
141920	NMB	3108NL-04W-B30	3.15 x 3.15 x 0.80	12 VDC	32	Ball	190 mA	1.68	UL, CSA	31	13" lead wires	9.95	8.95	7.95
75361	NMB	3110NL-04W-B10	3.15 x 3.15 x 1.00	12 VDC	25	Ball	150 mA	1.3	UL, CSA	27	12" lead wires	8.95	7.95	6.95
16993	Jameco	FAN7★	3.15 x 3.15 x 1.00	12 VDC	27	Sleeve	140 mA	1.6	UL, CSA	25	12" lead wires	9.95	8.95	7.95
131748	NMB	3110KL-04W-B20★	3.15 x 3.15 x 1.00	12 VDC	28	Ball	140 mA	1.3	UL, CSA	25	9" lead wires	9.95	8.95	7.95
123529	Sunon	KD1208PTS2	3.15 x 3.15 x 1.00	12 VDC	33	Sleeve	160 mA	2.0	UL, CSA	28	12" lead wires	10.95	9.95	8.95
102955	Sunon	KD1208PTB1	3.15 x 3.15 x 1.00	12 VDC	42.5	Ball	220 mA	2.6	UL, CSA	36.5	12" lead wires	10.95	9.95	8.95
108425	Innovative	BP922512M★	3.63 x 3.63 x 1.00	12 VDC	32	Ball	200 mA	2.3	UL, CSA	35	12" lead wires	9.95	8.95	7.95
75441	Innovative	SP922512H	3.63 x 3.63 x 1.00	12 VDC	42	Sleeve	320 mA	3.1	UL, CSA, TUV	40	12" lead wires	8.95	7.95	6.95
102963	Sunon	KD1209PTB1	3.63 x 3.63 x 1.00	12 VDC	51	Ball	220 mA	2.6	UL, CSA, TUV	34	12" lead wires	10.95	9.95	8.95
116476	Panaflo	FBA09A12H	3.63 x 3.63 x 1.00	12 VDC	56.8	Sleeve	225 mA	2.7	UL, CSA	35	6" lead wires	9.95	8.95	7.95
75467	NMB	4710NL-04W-B30	4.68 x 4.68 x 1.00	12 VDC	70	Ball	320 mA	2.9	UL, CSA, VDE	34	4" lead wires	9.95	8.95	7.95
102875	IMC (Boxer)	4710NL-04W-B50	4.68 x 4.68 x 1.00	12 VDC	90	Ball	740 mA	6.8	—	39	12" lead wires	10.95	9.95	8.95
136151	Panaflo	FBK12G12L	4.68 x 4.68 x 1.50	12 VDC	66	Ball	300 mA	1.7	—	30	12" lead wires	9.95	8.95	6.95
94625	IMC (Boxer)	4715PL-04W-B30	4.68 x 4.68 x 1.50	12 VDC	95	Ball	310 mA	7.2	UL, CSA	43	6" lead wires	10.95	9.95	8.95
139504	Rotron	MD12B1✓	4.68 x 4.68 x 1.50	12 VDC	110	Ball	500 mA	6.0	UL, CSA, TUV	50	12" lead wires	11.95	10.95	9.95
109831	NMB (Smart Fan)	4715ML-012P535-00†	4.68 x 4.68 x 1.50	12 VDC	100	Ball	500 mA	6.0	UL, CSA	45/31	12" lead wires	11.95	10.95	9.95
100909	Elina	FDC40-24H	1.60 x 1.60 x 0.80	24 VDC	22	Sleeve	145 mA	1.7	—	27	12" lead wires	8.95	7.95	5.95
136194	Sanyo Denki	109P0624H702	2.36 x 2.36 x 0.60	24 VDC	14	Ball	60 mA	1.4	UL, CSA	32	12" lead wires	8.95	7.95	6.95
140661	NMB	2408NL-05W-B60	2.36 x 2.36 x 0.80	24 VDC	18.4	Ball	100 mA	2.4	—	31	1.5" lead wires	8.95	7.95	6.95
146093	NMB	2410ML-05W-B50	2.36 x 2.36 x 1.00	24 VDC	23	Ball	100 mA	2.4	UL, CSA, VDE	35	12" lead wires	8.95	7.95	6.95
136160	Aromat	AIF801724H3	3.15 x 3.15 x 1.00	24 VDC	41	Ball	110 mA	2.6	UL	33	23" lead wires	9.95	8.95	7.95
100925	TRW	D31-B13A-05W3-000	3.15 x 3.15 x 1.25	24 VDC	25	Ball	130 mA	3.1	—	31	12" lead wires		Closeout	4.95
136792	Innovative	BP922524M	3.63 x 3.63 x 1.00	24 VDC	31	Ball	140 mA	3.3	UL, CSA, TUV	31	12" lead wires	9.95	8.95	7.95
117049	IMC (Boxer)	4710PL-05W-B20-100	4.68 x 4.68 x 1.00	24 VDC	53	Ball	90 mA	2.1	UL	33	12" lead wires	8.95	7.95	5.95
100968	IMC (Boxer)	4715PL-05W-B20	4.68 x 4.68 x 1.50	24 VDC	80	Ball	210 mA	4.8	—	38	12" lead wires	8.95	7.95	5.95

5mm x 20mm Miniature Fuses

Fast Acting Fuses
GMA Fuses: 5mm x 20mm
- Recommended for new design
- 250mA-3 amp (250V) • 5 amp (125V)
- Weight: .003 lbs.

Part No.	Amps	1-9	10-99	100	1000+
103886	250mA	$.17	$.14	$.11	$.09
102040	500mA	.17	.14	.11	.09
103907	1 amp	.17	.14	.11	.09
103915	2 amp	.17	.14	.11	.09
103923	3 amp	.17	.14	.11	.07
103931	5 amp	.17	.14	.11	.09

Slow Blow Fuses
GMC Fuses: 5mm x 20mm
- Recommended for new design • 125V • Wt: .002 lbs.

Part No.	Description	Price
103851	5 amp, slow blow fuse .... Closeout	$.19

.25" x 1.25" Standard Fuses

Fast Acting Fuses
AGC/3AG Fuses: .25" x 1.25"
- 250mA-10 amp (250V) • Weight: .004 lbs.

Part No.	Amps	1-9	10-99	100	1000+
69403	250mA	$.19	$.15	$.09	$.07
10410	500mA	.19	.15	.09	.06
10372	1 amp	.19	.15	.09	.07
10381	2 amp	.19	.15	.09	.07
69438	3 amp	.19	.15	.09	.07
10401	5 amp	.19	.15	.09	.07
69462	10 amp	.19	.15	.09	.06

Slow Blow Fuses
MDL/3AG Fuses: .25" x 1.25"
- 250mA-5 amp (250V) • 10 amp (32V) • Wt: .005 lbs.
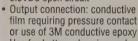
Part No.	Amps	1-9	10-99	100	1000+
25654	250mA	$.45	$.39	$.32	$.29
25689	500mA	.35	.30	.27	.23
25638	1 amp	.35	.30	.27	.23
25646	2 amp	.35	.30	.27	.23
69534	3 amp	.35	.30	.27	.23
25671	5 amp	.35	.30	.27	.23
69569	10 amp	.45	.39	.32	.29

Jameco .5 Watt Solar Panel

- Rated 9VDC @ 0.06A, .54 watt maximum (for maximum sunlight)
- 9.5VDC open circuit
- Output connection: conductive film requiring pressure contact or use of 3M conductive epoxy
- Use for battery charging and other solar applications or experiments
- Size: 6.0"Sq. x 0.1" Thick • Weight: 0.3 lbs.

Part No.	Description	1-4	5-9	10-24
141751	.5W solar panel	$4.95	$4.49	$3.49

Jameco 4 Watt Photovoltaic Solar Panel

- Rated 21VDC open circuit (max.)
- 14.5VDC at 0.280A in bright sunlight, short circuit at 0.325A
- Output connection: conductive film requiring pressure contact or use of 3M conductive epoxy
- Use for battery charging and other solar panel applications or experiments
- Use 2 or more panels in series or parallel for increased output • Weight: 1.6 lbs.

12" x 12" x 3/32" glass plate

Part No.	Description	1-4	5-9	10-24
106702	4W solar panel	$24.95	$22.95	$19.95

5mm Miniature Fuse Clips

- Accepts 5mm fuses
- Weight: .001 lbs.   **102859**
- Size: (not including solder tabs)   **119280**
  102859: 0.3"W x 0.2"L x 0.4"H
  119280: 0.2"W x 0.2"L x 0.5"H

Part No.	Description	1-9	10-99	100	1000+
102859	Fuse clip front leads	$.13	$.11	$.09	$.07
119280	Fuse clip side leads	.13	.11	.09	.05

.25" Standard PCB Fuse Clips

- Accepts .25" fuses
- Tinned brass • Weight: .002 lbs.
- Size: (not including solder taps)
  102841: 0.3"W x 0.3"L x 0.3"H
  121187: 0.3"W x 0.3"L x 0.4"H

Part No.	Description	1-9	10-99	100	1000+
102841	.25" fuse clip (10A) ..	$.13	$.11	$.09	$.07
121187	.25" fuse clip (20A) ...	.17	.14	.11	.09

5mm x 20mm Miniature In-Line Fuse Holder

- Accepts 5 x 20mm fuses
- Wire lengths: both 3.5"
- Built-in spring ensures good fuse connection
- Size: 2.1"L x 0.6"Dia. • Weight: .01 lbs.
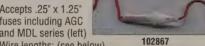
Part No.	AWG	Wire Color	Body Size(L)	Body Color	1-9	10-99	100+
109330	20	red	1.8"	white	$.49	$.39	$.25

.25" x 1.25" Standard In-Line Fuse Holders

- Accepts .25" x 1.25" fuses including AGC and MDL series (left)
- Wire lengths: (see below)   **102867**
- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center

Part No.	AWG	Wire Lengths	Wire Color	Body Size(L)	Body Color	1-9	10-99	100+
109321	22	3.5"/3"	red	2.4"	black	$.39	$.35	$.29
102867	20	3"/3"	red	2.2"	white	.59	.49	.39
108783	16	21"/26"	orange	2.2"	black	.99	.89	.69
108791	14	19"/25"	red	2.5"	black	1.19	.99	.49

5mm x 20mm Miniature Low Profile Fuse Holder

- Accepts 5mm x 20mm fuses
- 10A @ 250VAC
- UL/CSA recognized
- Weight: .02 lbs.
- D Style mounting hole (1.4"L x 0.5"Dia.)

Part No.	Description	1-9	10-99	100-999
102832	Fuse holder UL/CSA	$1.25	$1.09	$.99

5mm x 20mm Miniature Fuse Holder

- Accepts 5 x 20mm fuses including GMA and GMC series (left)
- 6A @ 250VAC
- Straight solder terminal
- Includes washer and rear hex nut
- Mounting hole (1.5"L x 0.5"Dia.)
- UL/CSA recognized • Weight: .02 lbs.

1.39" 1.18"

Part No.	Description	1-9	10-99	100-999
102824	Fuse holder UL/CSA	$.79	$.69	$.59

.25" x 1.25" Standard Panel Mount Fuse Holders

- Accepts standard .25" x 1.25" fuses including AGC and MDL fuses (left)
- Weight: .03 lbs.   **18702**
- 120993 for cylindrical style mounting hole, (44"Dia. x .42"flat)
- 18702 for D style mounting hole, (.58"Dia. x .52"flat) UL listed – recognized by Underwriters Lab for 10 amps, 250V or less

Part No.	Cap Type	1-9	10-99	100	1000+
18702★	Thumb screw cap (UL/CSA)	$.89	$.75	$.65	$.57
120993	Thumb screw cap	.69	.59	.49	.39

.25" x 1.25" Vertical PCB Mount Fuse Holder

- Accepts .25" x 1.25" fuses
- Preformed leads for wave soldering
- Size: 1.8"L x 0.5"Dia. • Weight: .02 lbs.

Part No.	Description	1-9	10-99	100	1000+
103552	.25" x 1.25" fuse holder ..	$.59	$.55	$.49	$.29

AIC 1000VA Isolation Transformer

- Input 110V/ Output 110V @ 10 amps
- Common "green" wire input/output
- Withstanding surge current 4500A
- Maximum clamping voltage: 360 volts
- Built in output voltmeter, MOV line conditioning and surge suppression, in-line fuse
- Dual AC output socket • Weight: 20.9 lbs.
- Size: 8.7"L x 7.0"W x 5.6"H • One-year warranty
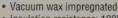
Part No.	Description	1-4	5-9
133831	Isolation transformer	$179.95	$159.95

Audio Transformers

- Vacuum wax impregnated
- Insulation resistance: 100MΩ
- Hipot tested: 100VAC
- ±20% impedance matching
- ±20% DC resistance matching
- Weight: 0.3 lbs.   **105902**

Fig. 1   Fig. 2   Fig. 3

Part Number	Product Number	Color	Fig.	Impedance (Ω) Primary	Impedance (Ω) Secondary	Resistance (Ω) Pri.	Resistance (Ω) Sec.	Core Type	Dimensions H"	Dimensions W"	Dimensions D"	1-9	10-99	100+
125356	XFR6006A14	Blue	1	600CT	600CT	65	55	EI-14	0.43	0.57	0.55	$1.49	$1.25	$1.09
125399	XFR1028A14	Red	1	1.2KCT	8CT	80	1	EI-14	0.43	0.57	0.55		Closeout	.49
125401	XFR60066A14	Blue	2	600CT	600/600	72	56/56	EI-14	0.43	0.57	0.55	1.49	1.39	.99
88284	XFR1801A14	Black	3	18K	100	735	5	EI-14	0.43	0.57	0.55		Closeout	.75
105902	XFR6006A19	Blue	1	600CT	600CT	65	55	EI-19	0.63	0.79	0.75	1.79	1.49	1.29
125452	XFR60066A19	Black	2	600CT	600/600	78	65/60	EI-19	0.63	0.79	0.75	1.95	1.75	1.25

JAMECO $1.39 Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
99.7% Stock Availability!

Power Transformers

Power transformers have both single and dual voltage input and center tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier, and filter circuits.
• Primary: 115VAC, 115/230VAC 50/60Hz
*Center tap
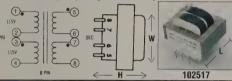
115VAC 50/60Hz — Figure 1
115/230VAC 50/60Hz — Figure 2
Figure 3

29225

Part Number	Product Number	Input Voltage	Color Code			Output Voltage	Color Code			Lead Type	Fig.	L"	W"	H"	Weight (lbs.)	1-9	10-24	25-49
134981	XFR055	115VAC	Black	—	Black	5.8VAC @ 5A	Black	—	Black	Wire	3	1.81	2.25	1.87	1.2	$4.95	$4.49	$2.95
29225	XFR122	115VAC	Yellow	—	Yellow	12.6VCT @ 2A	Blue	Red*		Wire	1	2.12	2.33	1.96	1.5	9.95	9.49	8.95
102120	XFR124	115VAC	Black	—	Black	12.6VCT @ 4A	White	Black*	White	Wire	1	2.53	3.08	2.61	2.7	11.95	10.95	9.95
112512	XFR242N	115VAC	Black	—	Black	24VAC @ 2A	White	—	White	Wire	3	1.75	2.75	2.25	1.8	7.95	6.95	5.95
99653	XFR242	115VAC	Red	—	Red	24.6VCT @ 2A	Blue	Yellow*	Blue	Wire	1	2.20	3.10	2.60	2.6	12.95	11.95	9.95
102162	XFR6102	115/230VAC	Black	Yellow*	Red	6.3VCT @ 1.2A	White	Black*	White	Wire	2	1.56	1.96	1.67	0.6	4.95	4.49	3.95
105523	XFR0910	115/230VAC	Black	White*	Red	9VCT @ 1A	Blue	Black*	Blue	Wire	2	1.79	1.96	1.66	0.7	4.95	4.49	3.49
102154	XFR1220	115/230VAC	Black	Yellow*	Red	12.6VCT @ 2A	White	Black*	White	Wire	2	2.35	2.32	1.97	1.5	7.95	6.95	5.95
105531	XFR1810	115/230VAC	Blue	Red*	Black	18VCT @ 1A	Yellow	Black*	Yellow	Wire	2	2.32	2.05	1.90	1.2	5.95	5.49	4.95
102111	XFR2410	115/230VAC	Black	Yellow*	Red	24VCT @ 1A	White	Black*	White	Wire	2	2.22	2.33	1.97	1.5	7.95	6.95	5.95
102103	XFR2520	115/230VAC	Black	White*	Red	25.2VCT @ 2A	Orange	Black*	Orange	Wire	2	2.47	3.07	2.61	2.8	11.95	10.95	9.95

Split-Bobbin Power Transformers

Split-bobbin provides a cost effective power solution for PC board requirements. They are non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling, eliminating costly electrostatic shielding.
• Primary: 115/230VAC 50/60Hz
• PC terminal pin spacing for accurate placement

Part Number	Product Number	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	L"	W"	H"	Wt. (lbs.)	1-9	10-24	25-49
102517	XFR1602SB	115/230	2.4	8V@ .15A	8V@ .30A	16VCT@ .15A	1.17	1.38	1.20	0.3	$4.95	$4.49	$3.95
102533	XFR1205SB	115/230	6.3	6.3V@ .50A	6.3V@ 1A	12.6VCT@ .50A	1.31	1.62	1.30	0.4	5.95	5.49	4.95
102592	XFR2405SB	115/230	12.0	12V@ .50A	12V@ 1A	24VCT@ .50A	1.58	1.90	1.46	0.7	5.95	5.49	4.95
102584	XFR1210SB	115/230	12.6	6.3V@ 1A	6.3V@ 2A	12.6VCT@ 1A	1.58	1.90	1.46	0.7	5.49	4.95	3.95
102605	XFR2010SB	115/230	20.0	10V@ 1A	10V@ 2A	20VCT@ 1A	1.88	2.25	1.41	0.8	Closeout		2.95

Quick Connect Power Transformers

• Quick connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
• Terminals: quick connect, soldering
• Input voltage: 115/230VAC, 50/60Hz

Part Number	Product Number	Input Voltage	Output Voltage	VA Cap	Size of Quick Connect	L"	W"	H"	Wt. (lbs.)	1-9	10-24	25-49
106673	XFR2404T	115VAC	24VCT@ 0.4A	31.5	0.125"	1.70	1.60	1.38	0.6	$3.95	$3.49	$2.95
104387	XFR1225Q	115/230VAC	12.6VCT@ 2.5A	31.5	0.187"	1.75	2.33	2.00	1.3	7.95	7.49	5.95
104408	XFR1635Q	115/230VAC	16VCT@ 3.5A	56	0.187"	2.00	2.70	2.30	1.8	8.95	8.49	7.95
101864	XFR2424Q	115/230VAC	24VCT@ 2.4A	57.6	0.187"	1.87	2.70	2.25	1.7	9.95	9.49	8.95
104416	XFR3615Q	115/230VAC	36VCT@ 1.5A	54	0.187"	1.90	2.70	2.30	1.8	9.95	9.49	8.95

50 to 1000 VA Step-Up / Step-Down Transformers
Use European appliances w/ U.S. receptacles!

• Allows primary power flexibility when buying or designing equipment for the worldwide market place
• Wide selection to meet your design requirements

Part Number	Product Number	Fig	Power (VA)	Primary Voltage	Secondary Voltage	H"	W"	D"	Weight (lbs.)	1-9	10-24	25-49
99573	AC110V50	1	50	220VAC	110VAC	2.50	1.63	1.33	0.7	$4.95	$3.95	$3.49
85016	AC110V300	3	300	220VAC	110VAC	3.50	3.05	3.95	4.8	24.95	22.49	19.95
111851	AC110V500	2	500	220VAC	110VAC	3.99	3.60	4.84	8.5	39.95	35.95	32.95
127699	AC110V1000	2	1000	220VAC	110VAC	4.50	3.70	5.10	11.9	49.95	47.95	44.95
142906	AC110V1500	2	1500	220VAC	110VAC	5.25	4.50	5.75	15.2		SALE	59.95
99477	AC220V50	1	50	110VAC	220VAC	2.50	1.63	1.33	0.7	5.95	4.95	4.49
85008	AC220V300	3	300	110VAC	220VAC	3.50	3.05	3.95	4.8	24.95	22.49	19.95

Fig. 1 Fig. 2 Fig. 3

Variable AC Transformers

• Input: 110VAC or 220VAC
• Output: 0-240VAC
• Built-in voltmeter for output voltage monitoring
• Banana/screw input terminals
• Universal US/European output plugs
• Lighted on/off power switch
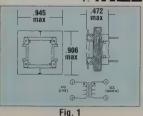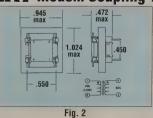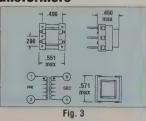
121275

Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275	3A/250V (P/N 69438)	5.3 x 7.3 x 7.0	10.4
129007	5A/250V (P/N 10401)	9.4 x 6.5 x 7.7	14.8
134842	10A/250V (P/N 69462)	8.5 x 6.5 x 5.6	17.3

Part No.	Description	1-4	5-9
121275	500VA variable transformer	$99.95	$89.95
129007	1000VA variable transformer	SALE	134.95
134842	1500VA variable transformer	169.95	152.95

☀ Midcom Modem Coupling Transformers

Fig. 1 Fig. 2 Fig. 3
• Weight: 0.04 lbs.

Part Number	Product Number	Fig.	Impedance (Ω) Pri	Sec	Insertion Loss dB @ 1kHz	DC current mA	Resistance (Ω) Pri	Sec	Dielectric Strength	Agency Approvals	1-9	10-99	100+
117760	671-8014	1	600	600	2.5	30	108	120	1250VAC	UL/CSA	$2.49	$2.25	$1.49
125575	671-8025	2	600	374	2.0	0	108	120	1250VAC	CSA		Closeout	.75
141621	671-8255	3	600	600	1.25	0	46.5	67.6	1250VAC	UL/CSA	1.95	1.75	.99

See opposite page for power plugs and jacks.
See page 49 for insulated solderless terminals.
See page 64 for selectable output DC wall transformers.

We specialize in Wall Transformers – call for large OEM pricing.

AC to DC Wall Transformers (Input: 120VAC 60Hz)

- Plugs into standard 2-prong 115V outlet (except P/N's 136717, 142295: 3-prong)
- Can change any power plug (see opposite page) on any DC wall transformers listed (100 pcs. min.)

Polarity 1 $(+)$─$(\cdot)$─$(-)$ (center negative) Polarity 2 $(-)$─$(\cdot)$─$(+)$ (center positive)

100853 15544 15561 15392

Part Number	Product Number	Output Rating		Output Plug / Polarity	Dimensions (in.)			Case Color	Cord Length (ft.)	Wt. (lbs.)	UL Listed CSA/CUL Approved	Pricing			
		Voltage	Current	ID x OD (mm) Plug Type	H	W	D					1-9	10-49	50-99	100+
100159	AZ36009E	4 VDC	700 mA	3.5 mm male **2**	2.76	1.97	1.61	Off White	7'	0.6	UL	$3.95	$3.49	$2.95	$1.95
112070	DC502F5	5 VDC	225 mA	2.5 mm x 5.5 mm female **2**	1.90	2.20	1.95	Black	7'	0.3	UL, CSA	4.95	4.49	3.95	3.55
136717	RPS480305G	5.2 VDC	500 mA	Just strip and tin	3.31	2.21	1.98	Black	6'	0.9	UL, CSA	4.95	4.49	3.95	3.25
135204	AP106	6 VDC	300 mA	3.5 mm right angle male **2**	2.80	2.00	1.60	Black	6'	0.7	UL	4.95	4.49	3.95	2.95
119255	DC605F11	6 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.31	1.75	1.75	Black	6'	0.6	UL, CUL	5.95	4.95	4.29	3.89
101266	DC605F12	6 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.44	1.89	1.61	Black	6'	0.4	UL, CSA	5.95	4.95	4.29	3.89
15544	DC605M3★	6 VDC	500 mA	3.5 mm male **2**	2.44	1.89	1.61	Black	6'	0.4	UL, CSA	5.95	4.95	4.29	3.89
140804	26010008	8 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.87	2.00	1.63	Black	6' 3"	0.7	UL, CSA	5.95	4.95	4.29	3.89
127511	RPS480808D	8 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	3.10	2.50	2.10	Black	6'	1.3	UL	6.95	5.95	4.95	4.25
134025	DC902F11	9 VDC	200 mA	2.1 mm x 5.5 mm female **1**	2.13	1.71	1.55	Black	6'	0.4	UL, CSA	4.95	3.95	3.49	3.15
100845	DC902F12	9 VDC	200 mA	2.1 mm x 5.5 mm female **2**	2.06	1.70	1.47	Black	6'	0.4	UL, CSA	4.95	3.95	3.49	3.15
128830	AEC3590	9 VDC	200 mA	2.5 mm x 5.5 mm female **2**	2.06	1.70	1.47	Black	6'	0.4	UL, CSA	4.95	3.95	3.49	3.15
103528	D1A3590	9 VDC	200 mA	2.5 mm male **2**	2.13	1.71	1.55	Black	6' 6"	0.4	UL, CSA	4.95	3.95	3.49	3.15
100837	DC902M3	9 VDC	200 mA	3.5 mm male **2**	2.20	1.70	1.55	Black	6'	0.4	UL, CSA	4.95	3.95	3.49	3.15
137322	ACT35	9 VDC	210 mA	Just strip and tin (w/ right angle conn.)	2.21	1.45	1.18	Black	6'	0.4	UL	3.95	3.49	2.95	2.25
133891	359300C	9 VDC	300 mA	2.1 mm x 5.5 mm female **2**	2.00	1.50	1.50	Black	6'	0.4	UL, CSA	4.95	4.25	3.75	3.25
137331	N4120	9 VDC	400 mA	2.1 mm x 5.5 mm right angle female **2**	2.40	1.92	1.66	White	6'	0.6	UL	4.95	4.49	3.95	2.95
140636	41D9400	9 VDC	400 mA	2.5 mm x 5.5 mm female **2**	2.58	2.00	2.00	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
100853	DC905F1★	9 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.50	1.90	1.74	Black	6'	0.6	UL, CSA	5.25	4.49	3.95	3.55
133727	SA9500G	9 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.45	1.90	2.20	Black	6'	0.7	220VAC/50Hz (Euro)			Closeout	3.95
15561	DC905M3★	9 VDC	500 mA	3.5 mm male **2**	2.50	1.95	1.56	Black	6'	0.6	UL, CSA	5.25	4.49	3.95	3.49
100175	DC906F5★	9 VDC	600 mA	2.5 mm x 5.5 mm female **2**	2.50	1.90	1.75	Black	6'	0.6	UL, CSA	5.49	4.95	4.29	3.89
130796	PAG1200	9 VDC	1000 mA	1.3 mm x 3.5 mm female **2**	2.70	2.27	1.90	Black	6'	1.0	UL, CSA	9.95	8.95	7.25	5.95
100888	DC910F1★	9 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL, CSA	9.95	8.95	7.95	6.49
127503	DV91A	9 VDC	1000 mA	2.5 mm x 5.5 mm female **2**	2.00	2.06	1.80	Black	6'	0.9	UL, CSA	9.95	8.95	7.25	5.95
15587	DC910M3★	9 VDC	1000 mA	3.5 mm male **2**	2.59	2.43	2.00	Black	6'	0.9	UL, CSA	9.95	8.95	7.95	6.49
130526	500273	9 VDC	1200 mA	2.1 mm x 5.5 mm female **1**	2.40	2.00	1.80	Black	6'	1.0	UL, CSA	9.95	8.95	7.95	6.25
143693	DC915F1	9 VDC	1500 mA	2.1 mm x 5.5 mm female **2**	3.25	2.50	2.25	Black	6' 4"	1.3	UL, CSA	11.95	10.95	9.95	8.95
143685	DC915F5	9 VDC	1500 mA	2.5 mm x 5.5 mm female **2**	3.25	2.50	2.25	Black	6' 4"	1.3	UL, CSA	11.95	10.95	9.95	8.95
143706	DC915M3	9 VDC	1500 mA	3.5 mm male **2**	3.25	2.50	2.25	Black	6' 4"	1.5	UL, CSA	11.95	10.95	9.95	8.95
100116	KXA10	12 VDC	100 mA	2.1 mm x 5.5 mm right angle female **1**	2.16	1.78	1.42	Gray	6' 6"	0.4	UL	3.25	2.75	2.25	1.95
100124	KXA09	12 VDC	200 mA	2.1 mm x 5.5 mm right angle female **1**	2.38	2.15	1.63	Dark Gray	6'	0.6	UL, CSA	3.95	3.49	2.95	2.65
100095	DC1202F1	12 VDC	200 mA	2.1 mm x 5.5 mm female **2**	2.14	1.82	1.49	Black	6'	0.7	UL, CSA	4.25	3.75	3.35	2.95
129322	DV1220DC	12 VDC	200 mA	2.5 mm x 5.5 mm right angle female **2**	2.20	1.70	1.50	Light Gray	6'	0.4	UL, CSA	4.25	3.75	3.35	2.95
127976	AC1730	12 VDC	300 mA	2.1 mm x 5.5 mm female **2**	2.60	1.80	1.60	Black	6'	0.7	UL	4.95	3.95	3.49	3.15
142295	48-12-400DR	12 VDC	400 mA	2.1 mm x 5.5 mm female **2** (regulated)	3.17	2.20	1.91	Black	6'	0.9	UL	9.95	8.95	7.95	6.95
114825	OM1250	12 VDC	500 mA	Plain-just strip and tin	2.60	2.50	1.63	Black	6'	0.6	UL	SALE	3.95	3.49	3.25
132943	OM1250A	12 VDC	500 mA	1.3 mm x 3.8 mm female **1**	2.60	2.50	1.63	Black	6'	0.6	120VAC or 220VAC	5.25	4.75	4.25	3.49
15368	DC1205F11	12 VDC	500 mA	2.1 mm x 5.5 mm female **1**	2.50	1.90	1.57	Black	6'	0.6	UL, CSA	5.49	4.95	4.49	3.95
102496	DC1205F12★	12 VDC	500 mA	2.1 mm x 5.5 mm female **2**	2.50	1.90	1.57	Black	6'	0.6	UL, CSA	5.49	4.95	4.49	3.95
131300	AD1250	12 VDC	500 mA	2.1 mm x 5.5 mm right angle female **2**	2.60	1.90	1.74	Off White	6'	0.6	UL, CSA	3.95	3.49	2.95	2.49
133735	A41205G	12 VDC	500 mA	2.1 mm x 5.5 mm right angle female **2**	3.20	2.20	2.70	Black	6'	1.0	220VAC/50Hz (Euro)	5.49	4.95	4.29	3.25
145672	KXA11-G	12 VDC	500 mA	2.1 mm x 5.5 mm right angle female **1**	2.50	1.91	1.66	Black	6' 5"	0.6	UL, CSA	4.95	4.49	3.95	3.49
102277	SPPS-172★	12 VDC	500 mA	2.5 mm x 5.5 mm female **2**	2.50	2.08	1.68	Black	6'	0.6	UL, CSA	5.49	4.95	4.29	3.89
17267	DC1205M3★	12 VDC	500 mA	3.5 mm male **2**	2.50	1.90	1.57	Black	6'	0.6	UL, CSA	5.49	4.95	4.29	3.89
117479	5600T	12 VDC	800 mA	2.1 mm x 5.5 mm female **2**	2.57	2.40	1.95	Black	7' 6"	0.9	UL, CSA	6.95	5.95	5.49	4.95
129331	48D12-800	12 VDC	800 mA	2.5 mm x 5.5 mm female **2**	3.24	2.24	1.86	Black	6'	0.9	UL, CSA	6.95	5.95	5.49	4.95
121232	DV1280	12 VDC	800 mA	3.5 mm male **2**	2.57	2.40	1.95	Black	7' 4"	0.9	UL, CSA	6.95	5.95	5.49	4.95
136565	M48DJ1	12 VDC	1000 mA	Plain-just strip and tin (desktop)	4.72	2.20	1.90	Black	6' AC - 6' DC	1.2	UL, CSA	7.95	6.95	6.25	5.25
100870	DC1210F1★	12 VDC	1000 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.2	UL, CSA	9.95	8.95	7.95	6.95
105478	DC1210F5	12 VDC	1000 mA	2.5 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	1.0	UL, CSA	9.95	8.95	7.95	6.95
15392	DC1210M3★	12 VDC	1000 mA	3.5 mm male **2**	2.58	2.39	1.97	Black	6'	1.0	UL, CSA	9.95	8.95	7.95	6.95
140880	DC1215ST	12 VDC	1500 mA	Plain-strip and tin (desktop)	3.13	2.13	1.87	Black	6'	1.5	—	10.95	9.95	8.95	7.95
136881	DC1215F1	12 VDC	1500 mA	2.1 mm x 5.5 mm female **2**	3.40	2.70	2.20	Black	6'	1.5	—	11.95	10.95	9.95	8.95
101291	DC1215F5★	12 VDC	1500 mA	2.5 mm x 5.5 mm female **2**	3.40	2.70	2.20	Black	6'	1.5	—	11.95	10.95	9.95	8.25
136899	DC1215M3	12 VDC	1500 mA	3.5 mm male **2**	3.40	2.70	2.20	Black	6'	1.5	—	11.95	10.95	9.95	8.95
143714	DC1220F1	12 VDC	2000 mA	2.1 mm x 5.5 mm female **2** (desktop)	3.75	2.75	2.25	Black	6' 4"AC-6' 4"DC	2.2	—	13.95	12.95	11.95	10.95
143722	DC1220F5	12 VDC	2000 mA	2.5 mm x 5.5 mm female **2** (desktop)	3.75	2.75	2.25	Black	6' 4"AC-6' 4"DC	2.2	—	13.95	12.95	11.95	10.95
143731	DC1220M3	12 VDC	2000 mA	3.5 mm male **2** (desktop)	3.75	2.75	2.25	Black	6' 4"AC-6' 4"DC	1.9	—	13.95	12.95	11.95	10.95
129314	DV1250	14 VDC	360 mA	2.5 mm x 5.5 mm right angle female **2**	2.34	1.98	1.60	Black	6'	0.6	UL, CSA	3.95	3.49	2.95	2.65
99881	DC1407F3	14 VDC	700 mA	1.3 mm x 3.5 mm female **2**	3.19	2.20	1.65	Black	6'	0.8	UL, CUL	7.95	6.95	6.25	5.59
123932	DC1407F1	14 VDC	700 mA	2.1 mm x 5.5 mm female **2**	2.58	2.39	1.97	Black	6'	0.8	UL, CSA	7.95	6.95	6.25	5.59
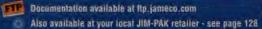
$1.39 SALE Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less

FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128

OEM Pricing Available!

Polarity 1 (+)—(•—(−) **(center negative)**   *We specialize in Wall Transformers – call for large OEM pricing.*   **Polarity 2** (−)—(•—(+) **(center positive)**

Part Number	Product Number	Output Rating Voltage	Output Rating Current	Output Plug / Polarity ID x OD (mm) Plug Type	Dimensions (in.) H	W	D	Case Color	Cord Length (ft.)	Wt. (lbs.)	UL Listed CSA/CUL Approved	1-9	10-49	50-99	100+
130761	2682950	15 VDC	200 mA	2.5 mm x 5.5 mm female **2**	2.72	2.10	1.72	Black	6'	0.9	UL, CSA	$5.49	$4.95	$4.49	$3.95
102285	DC2404F1★	24 VDC	400 mA	2.1 mm x 5.5 mm female **2**	3.00	2.30	2.00	Black	6'	0.9	UL, CUL	8.95	7.75	6.95	6.25
139088	DC2405M3	24 VDC	500 mA	3.5 mm male **2**	3.12	2.34	1.90	Black	6'	1.0	UL, CUL	9.95	8.95	7.95	6.95
139096	DC2412F1	24 VDC	1200 mA	2.1 mm x 5.5 mm female **2** (desktop)	2.60	3.10	4.40	Black	6.2'	2.5	———	13.95	12.95	11.95	10.95
117321	DC2412F5	24 VDC	1200 mA	2.5 mm x 5.5 mm female **2**	3.84	3.01	2.56	Black	6'	2.0	———	13.95	12.95	11.95	10.95
121241	DC2412M3	24 VDC	1200 mA	3.5 mm male **2**	3.37	2.70	2.22	Black	6'	2.0	———	13.95	12.95	11.95	10.95

AC Wall Transformers, Plugs and Jacks

Part Number	Product Number	Output Rating Voltage	Output Rating Current	Output Plug / Polarity ID x OD (mm) Plug Type	Dimensions (in.) H	W	D	Case Color	Cord Length (ft.)	Wt. (lbs.)	UL Listed CSA/CUL Approved	1-9	10-49	50-99	100+
114665	AC505M3	5 VAC	500 mA	3.5 mm male	2.41	1.73	1.64	Black	6'	0.4	UL	Closeout			$.99
114657	A410510	5 VAC	1000 mA	3.5 mm male	2.58	1.95	1.73	Black	6'	0.5	UL	Closeout			1.25
101127	DFX10096B	7 VAC	1500 mA	2.5 mm x 5.5 mm female	1.88	2.20	1.95	Black	7' 6"	0.8	UL, CSA	4.49	3.95	3.49	2.75
10129	AC905M3	9 VAC	500 mA	3.5 mm male	2.55	1.95	1.71	Black	6'	0.5	UL, CUL	4.95	4.49	3.95	3.49
100061	AC905F1★	9 VAC	500 mA	2.1 mm x 5.5 mm female	2.35	1.95	1.56	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
114577	AC905F5	9 VAC	500 mA	2.5 mm x 5.5 mm female	2.46	1.92	1.60	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
119204	A41090800	9 VAC	800 mA	2.1 mm x 5.5 mm female	2.55	1.91	1.74	Black	6'	0.6	UL	5.25	4.75	4.25	3.25
120141	AC908M3	9 VAC	800 mA	3.5 mm male	2.55	1.91	1.74	Black	6'	0.5	UL	5.25	4.75	4.25	3.25
102234	AC910F1★	9 VAC	1000 mA	2.1 mm x 5.5 mm female	3.20	2.24	1.93	Black	6'	0.6	UL, CSA	5.49	4.95	4.49	3.95
112336	AC915F5	9 VAC	1500 mA	2.5 mm x 5.5 mm female	2.50	2.20	1.96	Black	6'	0.9	UL	8.95	7.95	7.25	6.49
100132	WP572410	10 VAC	2400 mA	Striped and tinned *△	3.35	2.56	2.16	Black	5' 8"	1.3	UL	4.95	4.49	3.95	3.25
101258	AC1205F1	12 VAC	500 mA	2.1 mm x 5.5 mm female	2.76	1.97	1.60	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.25
10073	AC1205M3	12 VAC	500 mA	3.5 mm male	2.76	1.97	1.57	Black	6'	0.6	UL, CSA	4.95	4.49	3.95	3.49
10081	AC1210F1★	12 VAC	1000 mA	2.1 mm x 5.5 mm female	2.56	2.39	1.99	Black	6'	0.7	UL, CSA	5.49	4.95	4.49	3.75
100167	AA-121A	12 VAC	1000 mA	2.5 mm x 5.5 mm female	3.20	2.41	2.00	Black	6'	1.0	UL, CSA	5.49	4.95	4.49	3.95
10428	AC1210M3★	12 VAC	1000 mA	3.5 mm male	2.60	2.40	1.97	Black	6'	0.6	UL, CUL	5.49	4.95	4.49	3.95
131271	W35A14200	14 VAC	200 mA	2.5 mm x 5.5 mm female	2.40	1.70	1.64	Black	6'	0.4	UL, CSA	Closeout			1.95
100108	AC1610F1	16 VAC	1000 mA	2.1 mm x 5.5 mm female	2.50	2.35	1.95	Black	6'	0.9	UL, CSA	8.95	7.95	7.25	6.49
121216	AC1810F1	18 VAC	1000 mA	2.1 mm x 5.5 mm female	3.11	2.36	1.85	Black	6'	1.1	UL, CUL	8.95	7.95	7.25	6.49
104150	38H3	24 VACT	300 mA	4-#6 screw terminals *†△	1.89	2.20	1.96	Black	No cord	0.7	UL	Closeout			.99
107385	AC2404ST	24 VAC	400 mA	Stripped and tinned * △	3.00	2.00	1.87	Black	6'	0.6	UL, CUL	Closeout			3.49
87581	JA1-H501★	24 VAC	500 mA	2.5 mm x 5.5 mm female	3.28	2.19	1.72	Black	6'	0.9	Motorola	4.95	4.49	3.95	3.25
102269	WP572024	24 VAC	830 mA	2.1 mm x 5.5 mm female	3.25	2.06	3.06	Black	6'	1.2	UL	Closeout			4.95
140599	AC2410F1	24 VAC	1000 mA	2.1 mm x 5.5 mm female	3.80	2.24	1.88	Black	6'	1.2	UL, CSA	9.95	8.49	7.25	6.49
10102	AC2410M3★	24 VAC	1000 mA	3.5 mm male	3.37	2.70	2.20	Black	6'	1.2	UL, CSA	9.95	8.49	7.25	6.49

* Power plugs and jacks (see below)   † 24 AWG 2 conductor power cable (pg 51)   △ Insulated solderless terminals (pg 49)

Power Jacks

- Use with AC/DC wall transformers
- Some connections do not include nuts
- Use with mating power plug found in table below
- Dimensions do not include barrel • Weight: .01 lbs.

Type 1 Type 2 Type 3 Type 4 Type 5 Type 6 Type 7 Type 8 Type 9

Cir 1   Cir 2   Cir 3

Terminals	Code	Mounting	Code	Mounting	Code
Solder eyelet	A	Panel	C	Panel & PCB	E
PC board	B	PCB	D		

Part Number	Product Number	Description (Jack)	H x W x D (mm)	Type/ Mounting	Cir/ Terminals	Mating Plug (above)	1-9	10-99	100-499
145648	PJ0351	3.5 mm female	9.7 x 10.0 x 15.5	9D	2A	3.5 mm male	$.39	$.29	$.25
101143	PJ0352	3.5 mm female	10.0 x 10.0 x 18.5	3E	2A	3.5 mm male	.39	.29	.25
137664	PJ0353	3.5 mm female	10.0 x 9.0 x 16.5	7E	2A	3.5 mm male	.39	.29	.19
109495	PJ035PM	3.5 mm female	10.5 x 9.0 x 8.8	4C	2A	3.5 mm male	.39	.29	.25
101194	PP024	1.3 mm male	6.0 x 6.0 x 9.0	1D	1B	1.3 mm female	.45	.35	.29
109508	PJ021PCB	2.1 mm male	9.0 x 12.7 x 15.8	5D	1A	2.1 mm female	Closeout		.05
101178	PP014	2.1 mm male	10.9 x 9.0 x 14.5	1D	1A	2.1 mm female	.45	.35	.29
137672	PP013	2.1 mm male	10.9 x 9.0 x 14.5	8D	3A	2.1 mm female	.39	.29	.25
102082	PP015	2.1 mm male	20.0 x 8.8 x 12.6	2C	1A	2.1 mm female	.45	.35	.29
109428	PJ025PCB	2.5 mm male	8.0 x 12.0 x 9.6	5D	1A	2.5 mm female	Closeout		.05
115932	PJ125PCB	2.5 mm male	10.9 x 8.9 x 13.5	6D	1B	2.5 mm female	Closeout		.10
101186	PP014A	2.5 mm male	11.0 x 9.0 x 14.5	1D	1A	2.5 mm female	.45	.35	.29
102091	PP15A	2.5 mm male	20.4 x 9.3 x 11.7	2C	1A	2.5 mm female	.45	.35	.19

Power Plugs and Adapters

- Use 24 AWG 2 conductor wire, P/N 100280, to make custom length power cables (pg 51) • Shield crimp tabs

Part No.	Product No.	Description (Plug)	L x D x S (mm)	Type	1-9	10-99	100-499
28759	PP049	2.1 mm x 5.5 mm female (P205) plug	41.5 x 9.7 x 9.3	1A	$.55	$.45	$.29
28767	PP109	2.5 mm x 5.5 mm female (P206) plug	29.0 x 8.2 x 9.5	1A	.55	.45	.29
71191	PP137	1.3 mm x 3.5 mm female plug	32.3 x 7.8 x 9.6	1A	.59	.49	.35
101135	PJ1025	2.5 mm male (P201) plug	34.6 x 8.0 x 11.5	2A	.49	.39	.29
101151	PJ1035	3.5 mm male (P202) plug	39.9 x 10.2 x 14.3	2A	.55	.45	.35
138587	PJ021R	2.1 mm x 5.5 mm female right angle plug	22.5 x 11.5 x 12.0	1B	.89	.75	.59
138595	PJ025R	2.5 mm x 5.5 mm female right angle plug	22.5 x 11.5 x 12.0	1B	.89	.75	.59

- Use with mating power jack found in table above
- Use with AC/DC wall transformers (above & opposite page)
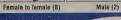- Solder eyelets 1mm diameter
- Plastic screw-on housing • Weight: .01 lbs.

Strain Relief (A)   Female to female (B)   Male (2)   Female (1)

Jameco 6 Watt Wall Transformer

- Input voltage: 115VAC @ 60Hz
- Input connector: standard 2 prong AC wall connector
- Output connectors: 2.5mm x 14mm male, 3.5mm x 15.5mm male, 2.1mm x 5mm female, 2.5mm x 5.5mm female and 9V battery snap (5-way)
- UL approved
- Size: 2.3"L x 2.0"W x 2.9"H
- Weight: 0.6 lbs.

Selectable Output:
+3VDC @ 500mA,
+4.5VDC @ 500mA,
+6VDC @ 500mA,
+7.5VDC @ 500mA,
+9VDC @ 500mA,
+12VDC @ 500mA

Part No.	Product No.	1-9	10-49	50+
15309 ★	DCM05 (stock item)	$7.95	$6.95	$5.95

Jameco 12 Watt Wall Transformer

- Input voltage: 110/220VAC @ 50/60Hz
- Input connector: standard 2 prong AC wall connector
- Output connectors: 2.5mm female, 2.1mm female, 1.5mm female, 3.5mm male, 2.5mm male and 9V battery snap
- Size: 2.5"L x 2.4"W x 3.7"H
- Weight: 1.2 lbs.

Selectable Output:
+1.5VDC @ 1000mA,
+3VDC @ 1000mA,
+4.5VDC @ 1000mA,
+6VDC @ 1000mA,
+7.5VDC @ 1000mA,
+9VDC @ 1000mA,
+12VDC @ 1000mA

Part No.	Product No.	1-9	10-49	50+
123158	DCM10 (stock item)	$9.95	$8.95	$7.95

13.8VDC Precision Regulated Linear Power Supplies

- Output terminal: binding post/plug (P/N 138667 connectors in rear) – see pg 60 for plugs
- Input voltage: 115VAC @ 60Hz
- Fuse protected • Short-circuit protection
- May require fan cooling if operated continuously at a significant current
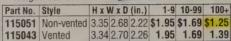- Heavy duty 3-pronged 5' power cord

138675 135845

Part No.	Description	Continuous Current	Surge Current	Size (L x W x H)	Weight (lbs.)	1-9	10-24
135845	Linear power supply	4A	6A	6.7" x 5.2" x 3.2"	5.5	$29.95	$26.95
136581	W/ overheating protection	7A	10A	8.7" x 5.7" x 3.6"	8.5	49.95	44.95
138667	Linear power supply	10A	12A	7.0" x 6.6" x 4.3"	10.0	69.95	62.95
138675	Linear power supply	20A	22A	10.0" x 7.8" x 4.4"	15.9	119.95	107.95

Wall Transformer Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Material: noryl
- Weight: 0.2 lbs.

115051

Part No.	Style	H x W x D (in.)			1-9	10-99	100+
115051	Non-vented	3.35	2.68	2.22	$1.95	$1.69	$1.25
115043	Vented	3.34	2.70	2.26	1.95	1.69	1.39

DC Power Cable

- Use for CBs, radios or other DC power connection
- (2) 24" 14 gauge red and black wires
- Polarized plug connectors
- Plastic tubing • Wt.: 0.2 lbs.

Part No.	Product No.	Description	1-99	100+
141911	CBL1	DC power cable	$.99	$.75

Auto Power Plugs

- Strain relief
- Screw assembly
- Plugs directly into cigarette lighter

124759

- Accepts .25" x 1.25" fuse (not included)

Part No.	Description	Wt. (lbs.)	1-99	100-999	1000+
115001	Auto plug only	.01	$1.19	$.89	$.69
124759	With fuse & 3' lead	0.1	1.75	1.49	1.19

Auto Power Plug Splitter

- Input: cigarette adapter; non-fused
- Splits out into two 5" female automobile type receptacles
- Weight: 0.2 lbs.

Part No.	Description	1-99	100-999	1000+
123182	Auto power plug splitter	$4.49	$3.95	$2.95

Batteries, Holders, Snaps and Clip

Ni-Cad Batteries

Nickel-Cadmium batteries are rechargeable, sealed cells.
- Can be used for cyclic, trickle or float charge use • Weight: .04 lbs.
- **IMPORTANT:** Batteries must be fully charged prior to use!

Fig. 1   Fig. 2   Fig. 3

Part No.	Product No.	Description	Fig.	Voltage	Amps	1-9	10-24	25-49
32627	S3300	AA	1	1.2V	500mAh	$2.95	$2.49	$2.25
126720	351FT	2-lead	2	3.6V	50mAh	3.95	3.49	2.95
119116	3/V60R	3-lead	2	3.6V	60mAh	3.95	3.49	2.95
101653	NA101-1	—	3	3.6V	60mAh	7.95	6.95	6.49

PC Battery Eliminator (All IBM PC Compatibles)

- Eliminates clock battery (3–7.2V) on your system
- See page 97 for complete specifications

Part No.	Description	Output Voltage	Wt. (lbs.)	1-4	5-9	10-24
11172	PC battery eliminator	4-5VDC	0.15	SALE	$35.95	$32.95

JAMECO Plastic Battery Holder

- Solder tabs • Made of durable, black plastic
- WLC – wire lead with connector (computer clock backup)
- Size: 2.30"L x 2.49"W x .64"H

Part Number	Batteries No./Type	Placement of Cells	Term	1-9	10-99	100-999	1000+
105857	4/AA	parallel (PC)	6" WLC	$.79	$.69	$.59	$.49

Tadiran Lithium, Silver Oxide and Alkaline Batteries

TL5000 Series applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, and video scramblers/descramblers.

11789   38543   33443   33371   33398

Part Number	Product Number	Description (V/Amps/Dia.)	Terminals/Connection	1-9	10-24	25-49
140783	357	1.55V/1.65Ah/.454"	Button cell (silver oxide)	$1.79	$1.59	$1.25
126762	AA101-4	4.5V/2.2Ah	Battery pack w/ plug (clock/memory)	6.95	6.25	5.59
11789	BR2325	3V/165mAh/.906"	Coin cell (clock/memory)	1.95	1.75	1.59
14162	CR2032	3V/180mAh/.787"	Coin cell (clock/memory)	1.25	1.09	.99
140775	CR2320	3V/130mAh/.906"	Coin cell (clock/memory)	1.95	1.75	1.25
33371	TL5101P	3.6V/.85Ah/.579"	Barrel w/ leads (clock/memory)	5.95	5.35	4.75
126754	TL5101S	3.6V/.85Ah/.579"	Half AA (Macintosh®)	8.95	7.95	6.95
33398	TL5104P	3.6V/1.9Ah/.579"	Barrel w/ lead (clock/memory)	7.95	7.15	6.49
146114	TL2100S	3.6V/1.9Ah/.579"	Barrel pressure fit	8.95	7.95	6.95
33427	TL5242W	3.6V/1.9Ah	Battery pack w/ plug (PC)	9.95	8.95	7.95
33443	TL5293W	6.0V/1.9Ah	Battery pack w/ plug (PC)	SALE 10.95	9.95	
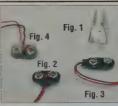
Coin Cell Battery Holders

Part No.	Product No.	Description	1-9	10-99	100+
38543	2S2325	Battery holder for BR2325 (PC mount)	$.99	$.75	$.49
38535	2S2032	Battery holder for CR2032 (PC mount)	1.19	.99	.89

9 Volt Battery Snaps & Clip

- Use with standard 9 volt batteries
- Fully insulated; contacts are nickel plated brass
- Snap: male outer diameter = 0.225"
- Leads are stripped and pre-tinned
- Leads are color coded
- Female inner diameter = 0.215"

Fig. 1   Fig. 4   Fig. 2   Fig. 3

Part Number	Fig.	Description	Dimensions (inches) L x W x H			1	10	100	1000+
135239	4	3", 26 AWG, 4 prong battery snap	1.0	.50	–	$.25	$.19	$.15	$.10
11279 ★	2	3", 26 AWG, 6 prong battery snap	1.0	.50	–	.27	.22	.18	.16
135221	4	6", 26 AWG, 4 prong battery snap	1.0	.50	–	.27	.22	.18	.11
109153	3	6", 26 AWG, 6 prong battery snap	1.0	.50	–	.25	.19	.15	.13
101469	3	10", 26 AWG, 4 prong battery snap	1.0	.50	–	.29	.25	.21	.15
105793	1	Battery holder clip (9 volt)	.63	.71	1.2	.19	.15	.12	.08

Mean Well Authorized Distributor Mean Well is an ISO-9001 Certified Company

• High efficiency • Low output ripple • 100% burn-in • Short circuit, overload over voltage protected • UL approved

123254   123342   123457   123481   132388

25 Watt Single Output Switching Power Supplies

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 and 220VAC operation)
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- UL/CE approved • MTBF see table below
- No minimum load required • Size: 3.9"L x 3.8"W x 1.4"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
123246	S-25-5	25.0	5V @ 5.0A	0.8 lbs.	$32.95	$29.95
123254	S-25-12	25.2	12V @ 2.1A	0.8 lbs.	32.95	29.95
123262	S-25-15	25.5	15V @ 1.7A	0.8 lbs.	32.95	29.95
123271	S-25-24	26.4	24V @ 1.1A	0.8 lbs.	32.95	29.95

40 Watt Single Output Switching Power Supplies

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 and 220VAC operation)
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- UL/TUV/CE approved • MTBF see table below
- No minimum load required • Size: 5.1"L x 3.9"W x 1.5"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
123289	S-40-5	40	5V @ 8.0A	1.0 lb.	$39.95	$35.95
123297	S-40-12	42	12V @ 3.5A	1.0 lb.	39.95	35.95
123318	S-40-24	43	24V @ 1.8A	1.0 lb.	39.95	35.95

60 Watt Single Output Switching Power Supplies

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 and 220VAC operation)
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- UL/TUV/CE approved • MTBF see table below
- No minimum load required • Size: 6.3"L x 3.8"W x 1.5"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
123326	S-60-5	60	5V @ 12A	1.2 lbs.	$44.95	$39.95
123334	S-60-12	60	12V @ 5A	1.2 lbs.	44.95	39.95
123342	S-60-15	60	15V @ 4A	1.2 lbs.	44.95	39.95
123351	S-60-24	60	24V @ 2.5A	1.1 lbs.	44.95	39.95

100 Watt Single Output Switching Power Supply

- Input voltage: 95 to 130VAC or 190 to 260VAC
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- Jumper selectable input • UL/TUV/CE approved • MTBF see table below
- No minimum load required • Size: 7.8"L x 3.9"W x 1.5"H

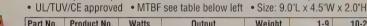| Part No.	Product No.	Watts	Output	Weight	1-9	10-24
123385	S-100F-12	102	12V @ 8.5A	1.4 lbs.	$54.95	$49.95

150 Watt Single Output Switching Power Supplies

- Input voltage: 90 to 130VAC or 180 to 260VAC
- Jumper selectable input
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- UL/TUV/CE approved • MTBF see table below
- No minimum load required • Size: 7.8"L x 4.3"W x 2.0"H
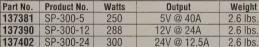
Part No.	Product No.	Watts	Output	Weight	1-9	10-24
123393	S-150-5	150	5V @ 30A	1.8 lbs.	$59.95	$53.95
123414	S-150-7.5	150	7.5V @ 20A	1.8 lbs.	59.95	53.95
123422	S-150-12	150	12V @ 12.5A	1.8 lbs.	59.95	53.95
123431	S-150-15	150	15V @ 10A	1.8 lbs.	59.95	53.95
123449	S-150-24	156	24V @ 6.5A	1.7 lbs.	59.95	53.95

MTBF (hours) vs Operating Temperature/Load

Models: S-25, S-40, S-60, S-100F, S-150, D-60, D-120, T-60, Q-120

Operating Temp.	50°C	40°C	30°C
Load 100%	10,000	30,000	90,000
Load 60%	30,000	80,000	200,000

Models: S-240, SP-300

Operating Temp.	50°C	40°C	30°C
Load 100%	45,000	90,000	180,000
Load 60%	62,500	125,000	250,000

240 Watt Single Output Switching Power Supplies

- Input voltage: 88 to 132VAC or 176 to 264VAC automatic switching
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- Automatic fan controls internal temperature • MTBF see table below left
- UL/CSA/TUV/CE approved • Size: 8.0"L x 3.7"W x 2.6"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
137630	S-240-5	200	5V @ 40A	2.5 lbs.	Closeout	$99.95
137648	S-240-12	216	12V @ 18A	2.5 lbs.	119.95	107.95
137656	S-240-24	240	24V @ 10A	2.5 lbs.	119.95	107.95

300 Watt Single Output Switching Power Supplies

- Input voltage: 100 to 240VAC
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- Over temperature protected • Automatic fan controls internal temperature
- UL/TUV/CE approved • MTBF see table below left • Size: 9.0"L x 4.5"W x 2.0"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
137381	SP-300-5	250	5V @ 40A	2.6 lbs.	Closeout	$129.95
137390	SP-300-12	288	12V @ 24A	2.6 lbs.	159.95	143.95
137402	SP-300-24	300	24V @ 12.5A	2.6 lbs.	159.95	143.95

60 Watt Dual Output Switching Power Supplies

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 and 220VAC operation)
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- UL/TUV/CE approved • MTBF see table below left
- Minimum load: all outputs at 10% of rated load • Size: 6.3"L x 3.8"W x 1.5"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
123457	D-60A	56	5V @ 4A, 12V @ 3A	1.2 lbs.	$49.95	$44.95
123465	D-60B	58	5V @ 3A, 24V @ 1.8A	1.2 lbs.	49.95	44.95

120 Watt Dual Output Switching Power Supplies

- Input voltage: 90-130VAC or 180-260VAC • Switch selectable input
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- Minimum load: all outputs at 10% of rated load
- UL/CE approved • MTBF see table below left • Size: 8.0"L x 4.4"W x 2.0"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
132409	D-120A	120	5V @ 12A, 12V @ 5A	1.9 lbs.	Closeout	$59.95
132396	D-120B	126	5V @ 6A, 24V @ 4A	1.9 lbs.	79.95	71.95

60 Watt Triple Output Switching Power Supplies

- Input voltage: 100 to 240VAC
- Full input range (no changes required for 110 and 220VAC operation)
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- UL/TUV/CE approved • MTBF see table below left
- Minimum load: all outputs at 10% of rated load • Size: 6.3"L x 3.8"W x 1.5"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
123481	T-60B	61	5V @ 5A, 12V @ 2.5A -12V @ 0.5A	1.2 lbs.	$49.95	$44.95
123490	T-60C	63	5V @ 5A, 15V @ 2.0A -15V @ 0.5A	1.2 lbs.	49.95	44.95

120 Watt Quad Output Switching Power Supplies

- Input voltage: 90-130VAC or 180-260VAC • Switch selectable input
- Mating input/output connector: P/N 103587 (pg 49) spade terminal
- Minimum load: all outputs at 10% of rated load
- UL/CE approved • MTBF see table left • Size: 8.0" x 4.4"W x 2.0"H

Part No.	Product No.	Watts	Output	Weight	1-9	10-24
132388	Q-120B	120	5V @ 11A, 12V @ 4A -5V @ 1A, -12V @ 1A	1.9 lbs.	$79.95	$71.95
132370	Q-120D	124	5V @ 8A, 12V @ 2A 24V @ 2A, -12V @ 1A	2.0 lbs.	79.95	71.95

Valor 1.8 Watt DC to DC Power Converters

Reduced Pricing

- Input: 5VDC (P/N 123895)
  12VDC (P/N 123908)
- Isolated outputs
- Operating temp range: 0°C to 70°C
- Hi Pot: 500VRS
- Efficiency 65%
- 24-pin use P/N 112264 socket (pg 43) • PC mount
- Size: 1.3"L x 0.6"W x 0.5"H

Schematic for P/N 123908 & 123895

Output: +9VDC @ 200mA

Part No.	Product No.	Description	1-9	10-24	25+
123895	PM7102	+5V 1.8 watt..	$3.95	$3.49	$2.95
123908	PM7104	+12V 1.8 watt..	3.95	3.49	2.95

COMPUTER PRODUCTS POWER CONVERSION 9 Watt DC to DC Power Converter

2000 Available

- Input voltage: 5 volts DC @ 2.1A
- PI input & output filters
- Isolation voltage: 500VDC
- Isolation capacitance: 180pf
- Isolation resistance: 1.0MΩ
- Short circuit protection
- Switching frequency: 20kHz
- Size: 2.0"L x 2.0"W x 0.5"H
- Weight: 0.1 lbs.

Product No. EM951S

Output: +12VDC @ 375mA, - 12VDC @ 375mA

Part No.	Description	1-9	10-24	25+
116986	9 watt converter..	$7.95	$7.25	$6.49

DATEL 2.5 Watt DC to DC Power Converter

FTP

- Input voltage: 12 volts DC
- Isolated outputs
- Efficiency 75%
- PC mount
- 8-pin (use socket P/N 39351 – pg 43)
- Size: 1.3"L x 0.8"W x 0.5"H
- Weight: 0.03 lbs.

Product No. BWR-5/250-D12

Output: +5VDC @ 250mA, - 5VDC @ 250mA

Part No.	Description	1-9	10-24	25+
137269	2.5 watt converter..	$7.95	$7.25	$6.49

COMPUTER PRODUCTS POWER CONVERSION 30 Watt DC to DC Power Converter

- Provides for remote sensing, and has six-sided continuous EMI/RFI shielding
- Input voltage: 18-36VDC @ 1.5A
- 100kHz switching regulator for up to 86% efficiency with loads as light as 25% of full load
- Isolation resistance: 10GΩ
- Switching frequency: 100kHz
- MTBF: 200,000 hrs.
- Size: 4.5"L x 2.5"W x 0.8"H
- Weight: 0.5 lbs.

Product No. WR24D12/1250U

Output: +12VDC @ 1.25A, - 12VDC @ 1.25A

150 Available

Part No.	Description	1-9	10-24	25+
133057	30 watt converter ..	$9.95	$8.95	$7.95

IPD 5 Watt DC to DC Power Converter

- Input voltage: 5 volts DC
- Isolated output
- Operating temp range: -25°C to +71°C
- Hi Pot: 500VDC
- Efficiency 64% • PC mount
- Size: 2.0"L x 2.0"W x 0.4"H
- Weight: 0.1 lbs.

2000 Available

Product No. FRS505S1

Output: +5VDC @ 1000mA

Part No.	Description	1-9	10-24	25+
124169	5 watt converter..	$2.95	$2.49	$1.95

Jameco 21 Watt DC to DC Power Converter

- Input: 16VDC (max)
- Output signals for battery-low and battery-in-use
- Recharges battery from external source
- Mating input connector for 7-pin male: P/N 103202 (pg 45)
- Mating input connector for 4-pin male battery: P/N 100802 (pg 45)
- Mating output connector for 6-pin male: P/N 103211 (pg 45)
- Mating output connector for 15-pin male: P/N 103202 (2) – pg 45 • No minimum load required
- Size: 3.6"L x 1.6"W x 0.8"H • Weight: 0.1 lbs.

FTP

Output: + 5.1 VDC @ 3.75A, - 26 VDC @ 0.04A, +12 VDC @ 0.1A, 350 VAC @ 5mA

200 Available

Part No.	Product No.		Price
109276	AA9090A (200 in stock)..	Closeout	$6.95

Power Supplies

We carry major manufacturers – call for large OEM pricing.

Skynet 17 Watt Switching Power Supply

UL CSA ⚠

- Input voltage: 115VAC/230VAC @ 50/60Hz
- Input auto ranging
- Mating input connector: P/N 104432 (pg 44)
- Mating output connector: P/N 104731 (pg 44)
- UL/CSA/TUV approved
- Minimum load: all outputs at 10% of rated load
- Data sheet included • MTBF: 325,000 hrs.
- Size: 5.1"L x 2.8"W x 1.0"H
- Weight: 0.3 lbs. • One-year warranty

FTP

Output: + 5VDC @ 2.0A, +12VDC @ 0.3A, -12VDC @ 0.3A

Part No.	Product No.		Price
101362	SDA3021 (10 in stock)..	Closeout	$34.95
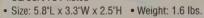
APS 40 Watt Regulated Switching Power Supply

UL CSA ⚠

NEW

- Input voltage: 115/230VAC @ 50/60Hz
- Input connector: 3 conductor detachable power supply cord P/N 38050 (pg 57)
- Output connector: 5 pin DIN with 5'9" cord
- UL/CSA/TUV listed
- Size: 5.8"L x 3.3"W x 2.5"H • Weight: 1.6 lbs.

Output: + 5VDC @ 5.0A, +12VDC @ 1.0A, -12VDC @ 0.5A

FTP

Part No.	Product No.	1-9	10-24
146376	APS40-ES-30 (135 in stock)	$14.95	$13.49

MEAN WELL 45 Watt Switching Power Supply

- Input: 90VAC/260VAC @ 50/60Hz
- Input auto ranging
- Mating input connector: P/N 104432 (pg 44)
- Mating output connector: P/N 104731 (pg 44)
- Minimum load: all outputs at 10% of rated load
- Data sheet included • Size: 5.0"L x 3.0"W x 1.6"H
- Weight: 0.6 lbs. • One-year warranty

Output: + 5VDC @ 3.0A, +12VDC @ 2.0A, -12VDC @ 0.5A

Part No.	Product No.	1-9	10-24	25+
88401	PT4002 (stock item)	$39.95	$35.95	$32.95

MEAN WELL 54 Watt Switching Power Supply

- Input: 110/220VAC @ 47/63Hz
- Line regulation: ±0.2%
- Ripple: 30mV peak-to-peak
- Load regulation: ±1%
- Stability: 0.1% after 8 hours
- Overcurrent protection: 110-130% automatic current limiting
- Adjustment: 5V main output ±10%
- Mating input connector: P/N 103587 (3) (pg 49)
- Mating output connector: P/N 103587 (6) (pg 49)
- Minimum load: all outputs at 10% of rated load
- Data sheet included • Size: 6.3"L x 3.9"W x 1.5"H
- Weight: 1.3 lbs. • One-year warranty

Output: + 5VDC @ 5.0A, +12VDC @ 1.0A, - 5VDC @ 1.0A, -12VDC @ 1.0A

Part No.	Product No.	1-9	10-24	25+
17056	FCS604A (stock item)..	$44.95	$39.95	$35.95

Skynet 61 Watt Switching Power Supply

UL CSA ⚠

- Input voltage: 115VAC/230VAC @ 50/60Hz
- Input auto ranging
- Mating input connector: P/N 104432 (pg 44)
- UL/CSA approved
- Minimum load: all outputs at 10% of rated load
- Data sheet included
- MTBF: 300,000 hrs.
- Size: 5.0"L x 3.0"W x 1.3"H
- Weight: 0.5 lbs. • One-year warranty

FTP

Output: + 5VDC @ 4.0A, +12VDC @ 3.0A, - 5VDC @ 0.3A, -12VDC @ 0.3A

Part No.	Product No.	1-9	10-24	25+
101397	SNP9F40 (stock item)	$49.95	$44.95	$39.95

Skynet 85 Watt Switching Power Supply

UL CSA ⚠

- Input voltage: 115VAC/230VAC @ 50/60Hz
- Input auto ranging
- Fuse: 3A @ 250V (5X20mm)
- Mating input connector: P/N 104432 (pg 44)
- Mating output connector: P/N 104766 (pg 44)
- UL/CSA/TUV approved
- Minimum load: all outputs at 10% of rated load
- Data sheet included • MTBF: 275,000 hrs.
- Size: 7.7"L x 4.3"W x 1.8"H
- Weight: 1.3 lbs. • One-year warranty

FTP

Output: + 5VDC @ 8.0A, +12VDC @ 3.0A, - 5VDC @ 0.5A, - 12VDC @ 0.5A

Part No.	Product No.	1-9	10-24	25+
101389	SNP3180 (stock item)	$69.95	62.95	$54.95

JAMECO

$1.39 SALE Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less

FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128

OEM Pricing Available!

Jameco 4.8 Watt Linear Wall Power Supply

Regulated Wall Transformer
- Input voltage: 120VAC @ 60Hz
- **Output voltage: +12VDC @ 400mA**
- Input connector: standard 2 prong AC wall connector
- Output connector: 6' cord with 2.1mm x 5.5mm female center positive polarity • UL approved
- Size: 3.0"L x 2.0"W x 1.8"H • Weight: 0.9 lbs.

Part No.	Product No.	1-9	10-49	50+
142295	48-12-400DR (900 in stock)	$9.95	$8.95	$7.95

Jameco 5 Watt Linear Table-Top Power Supply

- Input voltage: 120VAC @ 60Hz
- **Output voltage: +24VDC @ 1.2A**
- Input connector: 6.2' wire cord with 115VAC plug
- Output connector: 6' wire with 2.1mm x 5.5mm male plug
- Size: 4.4"L x 3.1"W x 2.6"H
- Weight: 2.5 lbs.

Part No.	Product No.	1-9	10-49	50+
139096	DC2412F1 (stock item)	$13.95	$12.95	$11.95

Atari 5 Watt Linear Table-Top Power Supply

- Input voltage: 115VAC @ 60Hz
- **Output voltage: +5VDC @ 1.0A**
- Input connector: 6' 2-wire cord with 115VAC plug
- Output connector: 6' wire with 7-pin DIN
- No minimum load required
- UL approved • Weight: 1.6 lbs.
- Size: 3.4"L x 2.7"W x 2.3"H

End View (Male)
Pins 1, 4 & 6 = +5VDC @ 1A
Pins 3, 5 & 7 = GND
Pin 2 = Shield

Part No.	Product No.	Price
116089	CO70042 (50 in stock) Closeout	$9.95

Novation 6.4 Watt Linear Wall Power Supply

- Input voltage: 120VAC @ 60Hz
- **Output voltage: +5VDC @ 0.8A, +12VDC @ 0.1A, -12VDC @ 0.1A**
- Input connector: standard 3 prong AC wall connector
- Output connector: 5.5' cable with 4-pin mini DIN
- No minimum load required
- UL approved
- Size: 2.2"L x 3.1"W x 5.2"H • Weight: 1.9 lbs.

Part No.	Product No.	1-9	10-24
134658	901053-1 (1600 in stock) SALE	$6.95	

Indesys 9 Watt Linear Table-Top Power Supply

- Input voltage: 120VAC @ 50/60Hz
- **Output voltage: +5VDC @ 600mA, +12VDC @ 250mA, -12VDC @ 250mA**
- Input connector: grounded 120VAC plug, 70" cord
- Mating output connector: P/N 15843 or 29399 (pg 44)
- No minimum load required
- Color: black • UL approved • Weight: 2.3 lbs.
- Size: 4.8"L x 3.1"W x 2.5"H

Gnd / +12 / -12 / Com / +5

Part No.	Product No.	1-9	10-24
103173	AD5126 (325 in stock)	$14.95	$13.49

Jameco 12 Watt Linear Table-Top Power Supply

- Input voltage: 120VAC @ 60Hz
- **Output voltage: +12VDC @ 1.0A**
- Input connector: 2 prong, 6' cord
- Output connector: strip and tin
- Mounting ears for wall mounting
- UL/CSA approved
- Size: 4.7"L x 2.2"W x 1.9"H
- Weight: 1.2 lbs.

Part No.	Product No.	1-9	10-49	50+
136565	M48DJ1 (1700 in stock)	$7.95	$6.95	$6.25

Keltron 15.2 Watt Linear Table-Top Power Supply

- Input voltage: 115VAC @ 60Hz
- **Output voltage: +5VDC @ 2.0A, +12VDC @ 0.2A**
- Protected by 0.5A fuse
- Input connector: 3 pronged 6' power cord
- Output connector: female molex 3 conductor, 3.5' cable
- Minimum load: all outputs at 10% of rated load
- UL approved • Weight: 3.1 lbs.
- Size: 7.0"L x 4.9"W x 2.5"H

1 Black: +26VDC @ 0.2A
2 Red: + 5VDC @ 2.0A
3 White: Common

Part No.	Product No.	1-9	10-49	50+
107326	MPC2562 (2000 in stock)	$4.95	$4.49	$3.95

Jameco 30.6 Watt AC Table-Top Power Supply

- Input voltage: 120VAC @ 60Hz
- **Output voltage: 9VAC @ 3.4A**
- Input connector: 120VAC plug, 6' cord
- UL/CSA approved
- Mating output connector: 3 position, 2 conductor molex
- No minimum load required
- Size: 3.5"L x 2.6"W x 2.6"H • Weight: 2.2 lbs.

Part No.	Product No.	Price
112467	DV9034A (725 in stock) Closeout	$4.95

ASTEC 12 Watt Linear Power Supply NEW

- Input voltage: 100/240VAC @ 47/440Hz
- **Output voltage: +12VDC @ 1A, -12VDC @ 1A**
- Input solder terminal selectable
- Input/output connectors: solder terminal
- Temperature rating: full rating – 0-50% in free air; minimum load to 40% load @ 70°C
- UL/CSA approved
- Size: 6.5"L x 4.0"W x 2.0"H • Weight: 2.4 lbs.

Part No.	Product No.	1-9	10-24
145269	ECV12D1 (131 in stock)	$19.95	$17.95

ASTEC 30 Watt Linear Power Supply NEW

- Input voltage: 100/240VAC @ 47/440Hz
- **Output voltage: +5VDC @ 6A**
- Input solder terminal selectable
- Input/output connectors: solder terminal
- Temperature rating: full rating – 0-50% in free air; minimum load to 40% load @ 70°C
- UL/CSA approved
- Size: 5.5"L x 5.0"W x 2.5"H • Weight: 6.5 lbs.

Part No.	Product No.	1-9	10-24
145277	ECV5N6-1 (215 in stock)	$19.95	$17.95

Tandy 24.5 Watt Switching Power Supply

- Input: 120VAC @ 50/60Hz
- **Output: +5VDC @ 2.36A, +12VDC @ 1.02A, -12VDC @ 0.04A**
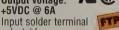- Minimum load: all outputs at 10% of rated load
- Molex style output connectors • UL/CSA approved
- Size: 7.9"L x 3.0"W x 2.9"H • Weight: 1.2 lbs.

Part No.	Product No.	1-9	10-49	50+
115094	PS706 (750 in stock)	$4.95	$4.49	$3.95

Power Switch Corp 28 Watt Switching Power Supply

- Input: 110/230VAC @ 50/60Hz
- **Output: +5VDC @ 4.3A, +12VDC @ 0.5A, -12VDC @ 0.1A**
- Input jumper selectable
- Mating input connector: P/N 104432 (pg 44)
- Minimum load: all outputs at 10% of rated load
- Size: 6.5"L x 4.0"W x 1.9"H • Weight: 1.1 lbs.

Part No.	Product No.	Price
98685	PS4030N (150 in stock) Closeout	$3.95

Computer Products 28.5 Watt Switching Power Supply

- Input: 110/240VAC @ 50/60Hz
- **Output: +5VDC @ 4.0A, +12VDC @ 0.5A, -5VDC @ 0.5A**
- Auto switching input voltage
- Mating input connector: P/N 38050 (pg 57)
- Minimum load: all outputs at 10% of rated load
- UL/CSA/VDE approved
- Size: 6.3"L x 3.5"W x 2.0"H
- Weight: 0.9 lbs.

+12VDC @ 0.5A
Ground
+5VDC @ 4A
-5VDC @ 0.5A

Part No.	Product No.	Price
114593	XL417601 (1600 in stock) Closeout	$5.95

Computer Products 34 Watt Switching Power Supply

5VDC @ 2A
GND
12VDC @ 2A
12VDC @ 2A
GND
5VDC @ 2A

- Input: 115/230VAC @ 50/60Hz
- **Output: +5VDC @ 2.0A, +12VDC @ 2.0A**
- Input jumper selectable • CSA approved
- Input connector is a 4-pin female molex
- Output connector: P/N 104715 (pg 44)
- Minimum load: all outputs at 10% of rated load
- Size: 10.9"L x 3.0"W x 1.7"H • Weight: 0.9 lbs.

Part No.	Product No.	Price
111966	PS70092 (375 in stock) Closeout	$3.95

Condor 40 Watt Switching Power Supply

- Input voltage: 85-264VAC @ 47/63Hz single phase
- **Output: +5VDC @ 8A**
- Input auto ranging
- Input current: 1.3A
- Protected by 2A fuse
- Remote sense (5+, 5-)
- Minimum load: 0.4A
- Mating input conn.: P/N 104432 (pg 44)
- Mating output conn.: P/N 104731 (pg 44)
- Size: 5.0"L x 3.0"W x 1.4"H • Weight: 0.8 lbs.

5VDC RTN

Part No.	Product No.	1-9	10-24
138878	GPC40-5 (650 in stock)	$17.95	$15.95

Skynet 40.2 Watt Switching Power Supply

- Input: 115/230VAC
- Output voltage:
  +5VDC @ 3.0A,
  +12VDC @ 2.0A,
  -12VDC @ 0.1A
- Input jumper selectable
- Mating input connector: P/N 104432 (pg 44)
- Mating output connector: P/N 104731 (pg 44)
- Minimum load: all outputs at 10% of rated load
- UL/CSA/VDE approved • Weight: 0.4 lbs.
- Size: 5.0"L x 3.0"W x 1.0"H

Part No.	Product No.	1-9	10-24
124177	SNP8171 (2700 in stock)	$14.95	$13.49

BSR 41 Watt Switching Power Supply

- Input voltage: 115VAC @ 50/60Hz
- Output voltage:
  +5VDC @ 3.75A,
  +12VDC @ 1.5A,
  -12VDC @ 0.4A
- Input connector: 3-pronged power cord receptacle – compatible with Jameco power cord 38050 (pg 57)
- Minimum load: all outputs at 10% of rated load
- UL/CSA approved
- Mating ouput connector: 7-pin connector
- Size: 7.0"L x 5.3"W x 2.5"H • Weight: 2.8 lbs.

Part No.	Product No.	Price
28927	PS41012 (100 in stock) Closeout	$7.95

Tectrol 41 Watt Switching Power Supply

- Input voltage: 115VAC @ 50/60Hz
- Output voltage:
  +5VDC @ 4.8A,
  +12VDC @ 1.1A,
  -5VDC @ 0.12A,
  -12VDC @ 0.34A
- Mating input connector: P/N 104432 (pg 44)
- Mating output connector: P/N 104811 (2) – pg 44
- Minimum load: all outputs at 10% of rated load
- UL/CSA approved • Wt.: 0.9 lbs.
- Size: 7.0"L x 3.4"W x 1.8"H

Part No.	Product No.	Price
28898	PS2407 (225 in stock) Closeout	$8.95

Power/Mate 46.4 Watt Switching Power Supply

- Input voltage: 110/220VAC @ 50/60Hz
- Output voltage:
  +5VDC @ 4.0A,
  +12VDC @ 2.2A
- Input jumper selectable
- Mating input connector: P/N 104715 (pg 44)
- Mating ouput connector: 7-pin connector
- Minimum load: all outputs at 10% of rated load • Wt.: 1.2 lbs.
- Size: 7.8"L x 4.9"W x 1.9"H

Part No.	Product No.	Price
112555	EVD65 (60 in stock) Closeout	$6.95

ASTEC 50 Watt Switching Power Supply NEW

- Input voltage: 115/230VAC @ 50/60Hz
- Output voltage:
  +5VDC @ 6.0A,
  +12VDC @ 2.5A,
  -5VDC @ 0.5A,
  -12VDC @ 0.5A
- Mating input connector: P/N 104432 (pg 44)
- Mating output connector: P/N 104432/104766 (pg 44)
- Minimum load: all outputs at 10% of rated load
- UL/CSA/VDE approved
- Size: 8.0"L x 4.5"W x 2.5"H
- Weight: 2.0 lbs.

Part No.	Product No.	1-9	10-24
146843	AC9232-01 (750 in stock)	$24.95	$22.49

Ault 11 Watt DC Linear Power Supply NEW

- Input voltage: 120VAC @ 60Hz
- Input Connector: grounded 120VAC, 5' 8½" cord
- Output voltage:
  +5VDC @ 1.0A,
  ±12VDC @ 0.25A
- Output Connector: 6-pin overmolded Molex connector, 6' 6" cord
- Size: 5.0"L x 2.5"W x 2.3"H • Weight: 2.3 lbs.

Part No.	Product No.	1-9	10-24
146860	7612-305-459E	$14.95	$13.49

Tectrol 50 Watt Switching Power Supply

- Input: 100/240VAC
- Output voltage:
  +5VDC @ 2.5A,
  +12VDC @ 1.4A,
  -30VDC @ 0.69A
- Requires power cord P/N 38050 (pg 57)
- Mating output connector: P/N 104715 – housing (2) – pg 44
- On/off rocker switch mounted on chassis case
- Minimum load: all outputs at 10% of rated load • UL/CSA/TUV approved
- Size: 8.5"L x 3.0"W x1.8"H • Weight: 1.2 lbs.

Part No.	Product No.	Price
127239	TC248 (775 in stock) Closeout	$4.95

Power Switch Corp. 50 Watt Switching Power Supply

- Input: 90-264VAC @ 47-63Hz
- Mating Input Connector: P/N 104723 (pg 44)
- Mating Output Connector: P/N 104715 (pg 44)
- Minimum load: all outputs at 10% of rated load
- UL/CSA/TUV approved
- Size: 5.0"L x 3.0"W x2.0"H
- Weight: 0.7 lbs.

Part No.	Product No.	1-9	10-24
146085	PV130-21 (200 in stock)	$7.95	$6.95

Phihong 57.3 Watt Switching Power Supply

- Input: 120VAC, 1A @ 47-440Hz
- Output voltage:
  +5VDC @ 4.5A,
  +12VDC @ 1.4A,
  +12VDC @ 0.3A,
  -12VDC @ 0.3A
- Mating input connector: P/N 38050 (pg 57)
- Mating output connector: P/N 42075 (2) – pg 45
- Color: black • UL approved
- Minimum load: all outputs at 10% of rated load
- Size: 6.0"L x 4.5"W x 2.9"H • Weight: 1.6 lbs.

Part No.	Product No.	Price
117313	PSA6141V (600 in stock) SALE	$5.95

Total Power International 65 Watt Switching Power Supply

- Universal input, over voltage protection
- Input: 90/264VAC @ 47/63Hz
- Input auto switching
- Mating output connector: P/N 104811 (2) – pg 44
- Minimum load: all outputs at 10% of rated load
- UL/CSA/TUV approved
- Size: 5.0"L x 3.0"W x 1.3"H
- Weight: 0.9 lbs.

Part No.	Product No.	1-9	10-24
145656	TPG65-21 (835 in stock)	$9.95	$8.95

Solar 77 Watt Switching Power Supply

- Input: 110/220VAC @ 60Hz
- Output voltage:
  +5VDC @ 10A,
  -5VDC @ 5.0A,
  -12VDC @ 0.2A
- Mating input connector: P/N 104432 (pg 44)
- Mating output connector: P/N 104766 (pg 44)
- Minimum load: all outputs at 10% of rated load
- Size: 7.8"L x 4.3"W x 1.9"H
- Weight: 1.3 lbs.

Part No.	Product No.	Price
98706	AH5934 (260 in stock) Closeout	$3.95

Integrated Power Design 115 Watt Switching Power Supply

- Universal input, short circuit protection, compact, over 15,000 hours MTBF
- Input: 85/264VAC @ 47/64Hz
- Output voltage:
  +5VDC @ 12A,
  +12VDC @ 4.0A,
  -12VDC @ 2.0A
- Input auto switching
- Minimum load: all outputs at 10% of rated load
- UL/CSA/TUV approved
- Size: 7.0"L x 4.3"W x 1.3"H • Weight: 1.3 lbs.

Part No.	Product No.	1-9	10-24
145664	SRW115-3001 (135 in stock)	$19.95	$17.95

Ultrasonic Motion Detector Kit ■

- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 4-7m away; 2nd board contains crystal controlled oscillator and all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Requires 9V battery (not included)
- Size: Main board: 2.8"L x 2.0"W x 0.8"H
  Transducer board: 2.8"L x 0.6"W x 0.9"H
- Weight: 0.1 lbs. for both boards

49 pc. Kit

Part No.	Description	1-4	5-9	10-24
125090	Ultrasonic alarm kit	$29.95	$26.95	$23.95

Unipolar Stepper Motor Driver Kit ■

- Will drive unipolar stepper motors rated at 6-30VDC @ 1.25A (or less)
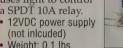- Drives 5, 6 or 8 lead unipolar stepper motors
- 5VDC regulator stabilizes power to the 555 clock IC
- Size: 2.6"L x 1.9"W x 1.0"H • Weight: 0.1 lbs.

29 pc. Kit

Part No.	Description	1-4	5-9	10-24
139109	Stepper motor kit	$29.95	$26.95	$23.95

Light Sensitive Relay Kit ■
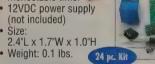
Build a stable and advanced circuit that uses light to control a SPDT 10A relay.
- 12VDC power supply (not inlcuded)
- Weight: 0.1 lbs.
- Size: 2.4"L x 1.3"W x 1.0"H

20 pc. Kit

Part No.	Description	1-4	5-9
136223	Light sensitive relay kit	$9.95	$8.95

Time-out Timer Relay Kit ■

- Uses a 555 as a monostable timer
- 12VDC power supply (not included)
- Size: 2.4"L x 1.7"W x 1.0"H
- Weight: 0.1 lbs.

24 pc. Kit

Part No.	Description	1-4	5-9	10-24
136215	Timer relay kit	$13.95	$12.49	$11.25

D.C. Motor Speed Control ■

- This kit uses Pulse Width Modulation to vary the speed of a DC motor with maintenance of torque
- For motors up to 100VDC/5A max.
- 5-16VDC supply (not included)
- Size: 3.6"L x 2.3"W x 1.2"H
- Weight: 0.2 lbs.

35 pc. Kit

Part No.	Description	1-4	5-9	10-24
127829	DC motor control kit	$29.95	$26.95	$23.95

Electronic Ignition System ■

- Better starting and smoother running
- Lower fuel consumption
- Less pollution
- Lower servicing costs
- PCB dimensions: 2.8"L x 1.4"W
- Weight: 0.4 lbs.

K2543 — *24 pc. Kit*

Part No.	Description	1-4	5-9	10-24
120601	Ignition system	$17.95	$15.95	$13.95

1 Watt Amplifier Kit ■

- Circuit designed around a single TDA7052 IC
- Ideal part for larger projects
- Drives 8Ω speaker (not included)
- Ideal for battery powered circuits, operates on 3-15VDC solder pads for all connections
- Batteries not included
- Size: 1.3"L x 1.1"W x 0.9"H • Weight: .04 lbs.

9 pc. Kit

Part No.	Description	1-9	10-24	25-49
125111	1 watt amp kit	$6.95	$6.25	$5.49

Combination Lock Kit ■

- 2 boards: one with 1-9 touch pads and connected to 2nd board by 3 ft. cable; 2nd board has decoding ICs, matrix to set 4 number code, and relay to control external loads
- Requires 9V battery (not included)
- Size: 3.0"L x 2.5"W x 1.0"H
- Weight: 0.2 lbs. for both boards

26 pc. Kit

Part No.	Description	1-4	5-9	10-24
125129	Combination lock	$13.95	$12.49	$11.25

Keypad and Alarm Micro Controller Kit ■

49 pc. Kit
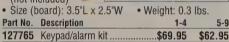
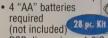- 3 levels of 4-digit programmable user codes for versatility in access and coding
- Requires 12VDC power supply (not included)
- Size (board): 3.5"L x 2.5"W • Weight: 0.3 lbs.

Part No.	Description	1-4	5-9
127765	Keypad/alarm kit	$69.95	$62.95

Telephone Pickup Kit ●

- Amplifies phone conversations using a sensitive pickup with a built-in suction cup
- 4 "AA" batteries required (not included)
- PCB dimensions: 1.6"Sq. • Weight: 0.3 lbs.

28 pc. Kit

Part No.	Description	1-4	5-9	10-24
127811	Telephone kit	SALE $14.95	$13.49	

Tape Recorder VOX Switch Kit ■

- Telephone line activated and powered circuit
- When handset is lifted, kit will turn on tape (cassette) recorder and supply audio
- Requires recorder with "MIC" and "REMOTE" control jacks
- Size: 1.9"L x 1.3"W x 0.6"H • Weight: 0.1 lbs.

24 pc. Kit

Part No.	Description	1-9	10-24
125145	Low volt tape record	$10.95	$9.95

17.5 Watt Bridged Amplifier Kit ●

- Based on the Hitachi HA13001 dual amplifier IC
- Drives 3-8 ohm speakers (2 required for stereo)
- IC requires heatsink (not included)
- 12V operation
- Weight: 0.1 lbs.

17 pc. Kit

Part No.	Description	1-4	5-9
136207	17.5W mono amp.	$12.95	$11.49

Siren Kit ●

20 pc. Kit

- Circuit designed around a dual op amp connected as an oscillator and driver
- Oscillator is off until you press the switch then a rising tone is produced until a steady value is reached
- If switch is released the tone starts dropping until it cuts off • Requires 9V battery (not included)
- Size: 2.0"L x 0.8"W x 0.5"H • Weight: 0.2 lbs.

Part No.	Description	1-9	10-24	25-49
125137	9V siren module	$5.95	$5.35	$4.75

One Chip AM Radio Kit ■

- This kit uses a single IC that performs as an RF amp, detector and AGC in an AM radio
- Requires 9VDC battery (not included)
- Size: 4.0"L x 1.3"W x 0.5"H
- Weight: 0.3 lbs.

39 pc. Kit
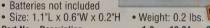
Part No.	Description	1-4	5-9	10-24
125161	AM radio	$16.95	$14.95	$13.49

Train Sound Kit ●

11 pc. Kit

- Produces 4 train sounds
- Components supplied for operation on 3VDC (includes battery holder for 2 "AA"), but circuit will operate from 2.4-6VDC
- Batteries not included
- Size: 1.1"L x 0.6"W x 0.2"H • Weight: 0.2 lbs.

Part No.	Description	1-9	10-24	25-49
125170	4 train noises	$8.95	$7.95	$6.95

Door Chime Sound Kit ●

- Produces 16 door chime melodies
- Components supplied for operation on 3VDC (includes battery holder for 2 "AA"), but circuit will operate from 2.5-5VDC • Batteries not included
- Size: 1.1"L x 0.6"W x 0.2"H • Weight: 0.2 lbs.

11 pc. Kit

Part No.	Description	1-9	10-24	25-49
125188	Door chime	$8.95	$7.95	$6.95

Speech Recognition Circuit Kit

- Includes a PCB, keypad, digital display, microphone and necessary components
- Single chip voice recognition CMOS LSI
- Speaker dependent
- External RAM support
- Maximum 40 word recognition at .96 seconds word length
- Minimum 20 word recognition at 1.92 seconds word length
- Microphone support • Requires 9VDC battery
- PCB dimensions: 4.8"L x 4.4"W • Weight: 0.6 lbs.
- Keypad demensions: 2.8"L x 2.8"W

HM2007U1 — *41 pc. Kit*
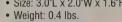
Part No.	Description	1-4	5-9
141401	Speech kit	$99.95	$89.95

Windshield Wiper Delay ●

Allows you to control your wipers at 5, 10, or 15 second intervals.
- Supply voltage: 12-15 volts at 25mA (off) or 100mA (on)
- Size: 3.0"L x 2.0"W x 1.6"H
- Weight: 0.4 lbs.

K2599 — *19 pc. Kit*

Part No.	Description	1-4	5-9	10-24
129103	Windsld wiper delay	$19.95	$17.95	$15.95

Computer Interface Board ▲

Connects to the printer port of a computer without interruption of the printer at the existing port. Works well in control applications such as the DC dimmer (P/N 128901 – pg 71) and infrared tran./rec. P/Ns 120555 and 120547 (pg 70).

K8000
301 pc. Kit

• 16 I/Os with opto coupler
• Analog outputs: (8) 6-bit (64 steps), (1) 8-bit (256 steps)
• Analog inputs: (4) 8-bit (256 steps)
• Full opto-isolation with computer
• 3.5" driver disk w/ routines in C++, QBASIC, Turbo Pascal • Requires DB25 cable P/N 65787 (pg 127)
• PCB size: 9.3"L x 5.3"W • Weight: 1.7 lbs.

Part No.	Description	1-4	5-9
128928	Computer Interface board	$149.95	$134.95

DC to Pulse Width Modulator ▲

The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

K8004
40 pc. Kit
FTP

• PWM range: 0 to 100%
• PWM frequency: 100Hz to 5kHz (adjustable)
• Operating voltage: 8 to 35VDC
• Minimum consumption: 35mA
• Maximum output current: 6.5A
• Efficiency: better than 90% at full load
• Adjustable sensitivity: 2.5 to 35VDC
• Size: 3.3"L x 1.9"W x 1.8"H • Weight: 0.5 lbs.

Part No.	Description	1-4	5-9	10-24
120539	Modulator	$20.95	$18.95	$16.95

Universal AC Motor Control ▲

This kit is especially designed for control of drills or any other AC motor with carbon brushes.

50 pc. Kit

• Power supply: 125VAC or 220-240VAC, 50/60Hz
• Load supply: 24VAC to 240VAC
• Max power to be regulated: 1200W @ 220V • Control range: 5% to 95%
• Size: 5.2"L x 3.0"W x 2.2"H • Weight: 0.9 lbs.

Part No.	Product No.	Description	1-4	5-9
129082	K2636	AC motor controller	$29.95	$26.95

Universal Relay Card ▲

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

64 pc. Kit

• Relay contact: 5A/220V
• Output voltage: 12VDC/250mA
• Power supply: 220V or 125VAC/12VAC
• PCB size: 8.3"L x 5.9"W • Weight: 1.8 lbs.

Part No.	Product No.	Description	1-4	5-9
128910	K6714	Univ. relay card	$59.95	$53.95
144186	VR15M121C Relay	SALE		4.75

Liquid Level Controller ▲

With this kit, you can control the level of any container of liquid. You can also replace the liquid sensors with temperature or light sensors and use accordingly. There are relay switches to a separate circuit that can maintain fluid between low and high levels.

K2639
73 pc. Kit

• Supply voltage: 12-14VDC @ 300mA min., recommend transformer P/N 10081 (pg 63)
• Alarm signal provided for desired applications
• PCB size: 4.1"L x 2.4"W x 1.0"H • Weight: 0.5 lbs.

Part No.	Description	1-4	5-9	10-24
129154	Liquid level contr.	$24.95	$22.49	$19.95

2-Wire, 8-Channel Communication Transmitter and Receiver ■

131721
46 pc. Kit
18 pc. Kit
131730

• Transmitter P/N 131730 requires receiver P/N 131721
• Two wire communication hookup
• Power supply through data-line (each requires 9 to 16VDC @ 1.5mA supply – not included) recommend P/N 101291 (pg 62)
• Tested to a distance of 164 feet
131730: • PCB size: 1.7"L x 1.5"W • Weight: 0.3 lbs.
131721: • PCB size: 3.8"L x 1.8"W • Weight: 0.3 lbs.

Part No.	Product No.	Description	1-4	5-9
131730	K6700	8-ch. transmitter	$14.95	$13.49
131721	K6701	8-ch. receiver	24.95	22.49

Infrared Code Lock Transmitters and Receivers ■ ▲

K6707
75 pc. Kit

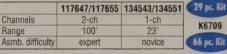• Use for car alarms, garage doors, door locks, lighting control, etc.
• Over 8000 selectable codes
• Use several transmitters with one receiver

117655
K6708
16 pc. Kit

• Transmitters require 12V battery type V23G
• Receivers feature relay output 10A change-over or pulse contact and require 12-16VDC @ 100mA

134543
K6706
29 pc. Kit
K6709
66 pc. Kit

• Weight: 0.3 lbs. (transmitters) 0.5 lbs. (receivers)

	117647/117655	134543/134551
Channels	2-ch	1-ch
Range	100'	23'
Asmb. difficulty	expert	novice

Part No.	Product No.	Description	1-4	5-9
117647★	K6706	2-ch transmitter	$15.95	$14.49
117655★	K6707	2-ch receiver	29.95	26.95
134543	K6708	1-ch transmitter	SALE	17.95
134551	K6709	1-ch receiver	34.95	31.49

15-Channel Infrared Transmitter and Receiver ■

• 15 independent channels
• Transmitter/receiver range: ±30 meters
120555:
37 pc. Kit
• Supply voltage: 9V battery
• Weight: 0.8 lbs.
120555

120547:
• Each output can be a change-over or pulse contact switch
• Power requirements: 8-14VDC
• PCB dimensions: 2.8"L x 5.7"W
120547
76 pc. Kit
• Weight: 0.5 lbs.

Part No.	Product No.	Description	1-4	5-9
120555	K6710	Infrared transmitter	SALE	$62.95
120547	K6711	Infrared receiver	49.95	44.95

Metal Detector ■

K7102
22 pc. Kit

• Proximity range adjustable to 8cm
• Battery supply: 9 volts (not included)
• LED indicator, can use a buzzer as an option (P/N 105822 – pg 52)
• Weight: 0.4 lbs.

Part No.	Description	1-4	5-9	10-24
129091	Metal detector	$12.95	$11.49	$9.95

Remote Control by Telephone ▲

• Possible to turn on or off up to three devices
• Check conditions of a switch (open or closed)
• Turn lights on and off from a touch tone telephone
• Check home/office alarm system
• Turn heating on before arriving home
• Protected by a user-defined code
• Pick up after 3 or 8 rings (selectable)
• Supply voltage: 12VAC @ 300mA
• Relay included for one output (10A/250VAC)
• PCB dimensions: 4.1"L x 5.1"W • Weight: 0.7 lbs.

K6501
116 pc. Kit

Part No.	Description	1-4	5-9	10-24
120678	Remote control	$69.95	$62.95	$56.95

Parking Radar ■

This kit uses a sensor circuit board which is mounted to the back of the car, and a "base" to operate. Parking in tight places can be difficult, but the unit can tell you when you have come within the preset distance you set of the object behind you.

• Detection range: 5cm - 1.5m, adjustable angle: 5°
• Transmitter frequency: 40kHz
• Power supply: 10-15VDC @ 16mA max or auto power plug (P/N 115001 – pg 62)
• PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)
• Weight: 0.5 lbs.

K3502
55 pc. Kit

Part No.	Description	1-4	5-9	10-24
129120	Parking radar	$44.95	$39.95	$35.95

LED Car Alarm ▲

• Entry/exit delay
• Pre-alarm to indicate when alarm is activated
• Flashing LED indicates alarm is armed in standby
• Relay output rating: 5A
• PCB dimensions: 2.5"L x 3.9"W • Weight: 0.5 lbs.

61 pc. Kit

Part No.	Product No.	Description	1-4	5-9
120627	K3504	Car alarm	SALE	$19.95

Code Lock Kit ■

• Switch an alarm on and off or open door locks
• 3000+ codes possible
• LED indicates state
• Relay contact rating: 5A/220V
• Pulse or switch outputs
• PCB dimensions: 1.7"L x 1.8"W • Weight: 0.5 lbs.

67 pc. Kit

Part No.	Product No.	Description	1-4	5-9
127554	K6400	Code lock kit	$34.95	$31.49

Electronic Watchdog Kit ■

• Choice of 2 different dogs
• Realistic simulation through random generator
• Reacts to environmental noise with adjustable sensitivity • Can connect to other trigger detectors
• PCB dimensions: 5.6"L x 2.9"W • Weight: 0.5 lbs.

104 pc. Kit

Part No.	Product No.	Description	1-4	5-9
127597	K2655	Electronic watchdog	$39.95	$35.95

Stroboscope ▲

Make your own snapshots and "lightning" light effects. Flash frequency adjustable from 2 - 20Hz.

• Input: 110VAC
• Weight: 0.4 lbs.
• PCB dimensions: 3.5"L x 2.6"W

K5300
19 pc. Kit

Part No.	Description	1-4	5-9	10-24
117639★	Stroboscope	SALE	$17.95	$15.95

3-Channel Light Organ ■

- Each channel reacts to a different part of the music spectrum and can be adjusted to react to a different frequency range
- Line or microphone input
- Maximum load 2A per channel
- Space for optional noise filters
- Each output has individual sensitivity control
- Complete housing and AC power connectors
- Dimensions: 6.7"W x 5.6"D x 1.7"H • Weight: 1.2 lbs.

80 pc. Kit

Part No.	Product No.	Description	1-4	5-9
131684	K5202	3-ch sound light ...$59.95		$53.95

Universal Mono Pre-Amplifier ■

For audio applications where there is insufficient input signal. Use as a microphone pre-amplifier or for level correction.

- Requires power supply: 10-30VDC/10mA (P/N 20626, pg 72)
- Output impedance: 1kΩ
- Frequency range: 20Hz - 20kHz +/-3dB
- Adjustable output level • Max. input signal: 40mV
- PCB dimensions: 1.2"L x 1.8"W • Weight: 0.3 lbs.

K1803

17 pc. Kit

Part No.	Description	1-4	5-9	10-24
117612	Pre-amplifier $9.95		$8.95	$7.95

FM Oscillator ●

Mini FM transmitter (100-108MHz) is ideal for family broadcasts, baby monitor and security. May be received by any portable FM radio or tuner. Connects to any type of microphone (P/N 112352, pg 52).

- Integrated pre-amplifier (sensitivity 5mV)
- Requires power supply: 9-12VDC (P/N 20626 or equivalent, pg 72)
- PCB dimensions: 1.8"L x 2.8"W • Weight: 0.3 lbs.

K1771

26 pc. Kit

FTP

Part No.	Description	1-4	5-9	10-24
117604	FM oscillator $12.95		$11.49	$9.95

1 Amp Power Supply ■

Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators. Chip includes current limiter and thermal overload protection. Supplied without cooling and power transformer.

- Output current max.: 1.5A
- Requires quick connect power transformer: 25.2VCT @ 2A (P/N 102103 or equivalent, pg 61)
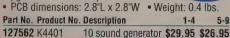- Max. dissipation: 15W (cooled)
- Max. input voltage: 40V
- PCB dimensions: 2.1"L x 2.1"W • Weight: 0.3 lbs.

K1823

12 pc. Kit

Part No.	Description	1-4	5-9	10-24
117621	Power supply $12.95		$11.49	$9.95

Sound Generator Kit ■

- Produces 10 different sounds with speed adjustable: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns
- Push-button keyboard
- Requires 9V battery (not included)
- Requires 8 ohm/1 watt speaker (P/N 102031 or equivalent, pg 53 - not included)
- PCB dimensions: 2.8"L x 2.8"W • Weight: 0.4 lbs.

61 pc. Kit

Part No.	Product No.	Description	1-4	5-9
127562	K4401	10 sound generator	$29.95	$26.95

Supermini 2.5W Audio Power Amplifier ■

K2637

This circuit has incredibly tiny dimensions. The IC has a pre- and power amplifier, which can be used separately by cutting a jumper.

- Power supply: 4.5V to 15VDC @ 400mA
- Operating frequency: 60Hz to 15kHz
- Max. output power: 2.5W (4Ω, 12V)
- Short circuit/thermal overload protection
- Dimensions: 1.7"L x 1.3"W x 1.1"H • Weight: 0.3 lbs.

27 pc. Kit

Part No.	Description	1-4	5-9	10-24
127175	2.5W audio pwr amp kit	$13.95	$12.49	$10.95

7W Mono Amplifier Kit ■

- Music output power: 7W/4Ω
- RMS output: 3.5W/4Ω & 2W/8Ω
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection • Requires speakers
- Requires power supply: 15VDC (8 to 18VDC) 0.5A
- PCB board size: 2.2"L x 1.4"W • Weight: 0.3 lbs.

K4001

22 pc. Kit

Part No.	Description	1-4	5-9	10-24
127255	7W mono amp. kit	$12.95	$11.49	$10.49

Electronic Record/ Playback Module ▲

- Digitally record and play up to 5 voice messages
- Automatic playback feature
- 12 to 20 seconds per module (can cascade modules)
- Requires loudspeaker output: 8Ω (recommend P/N 102031, pg 53)
- Messages recorded to nonvolatile voice chip
- Supply voltage: 9-12VAC or 6VDC (4 x 1.5V batteries) – battery pack included, batteries not included
- PCB dimensions: 4.8"L x 3.8"W • Weight: 0.5 lbs.

114 pc. Kit

Part No.	Product No.	Description	1-4	5-9
127571	K4400	Elec. rec./plbck mod. ... **SALE**		$49.95

AM/FM Antenna Amplifier ■

Easy to assemble, this amplifier may make the difference in your reception quality, especially in your car or in areas with any deflection due to terrain and buildings.

- Supply voltage: 12-15VDC @ 1-3mA
- Gain 22dB (10MHz to 150MHz)
- Includes metal casing to store amp • Weight: 0.4 lbs.
- Assembled size: 3.4"L x 1.4"W x 1.0"H

K2622

23 pc. Kit

Part No.	Description	1-4	5-9	10-24
129146	AM/FM ant. amp....$15.95		$14.49	$12.95

Slow On/Slow Off Dimmer ▲

- Excellent device to control lighting in places such as garages, stairways, porches, etc.
- 2 mode operation: dim slowly (2 sec. to 1 hour) and timer/dimmer (independent adjustment 1 sec. to 30 min.)
- Voltage inputs: 110-125 or 220-240V, 50 or 60Hz for external power use (2) P/N 112723 (pg 57)
- Maximum load: 2A • Power supply included
- PCB dimensions: 3.7"L x 2.7"W • Weight: 0.4 lbs.

81 pc. Kit

Part No.	Product No.	Description	1-4	5-9
127589	K2657	Slw on/slw off dimmer	$24.95	$22.49

Dual 30 Watt Power Amplifier ■

- Dual 30W/4Ω
- Channel separation: 70dB
- RMS output: dual 15W @ 4Ω or dual 10W @ 8Ω
- Frequency bandwidth: 7Hz to 60kHz (-3dB)
- Supply voltage: 24VCT @ 2A (50W transformers), recommend P/N 101864 (pg 61)
- Size: 2.8"L x 2.0"W • Weight: 0.6 lbs.

38 pc. Kit

Part No.	Product No.	Description	1-4	5-9
129138	K4003	2 x 30 amplifier $34.95		$31.49

Pink Noise Generator ■

- Use to analyze the acoustic properties of a room
- 33-bit shift register
- Clock frequency from 30kHz and 100kHz
- Output voltage: 150mV RMS @ 40kHz
- Pink noise filter: -3dB per octave
- Can be used with P/N 129171 (below)
- Required power supply: 9-12VAC or 12-15VDC @ 5mA
- PCB size: 2.8"L x 1.6"W • Weight: 0.4 lbs.

K4301

34 pc. Kit

Part No.	Description	1-4	5-9	10-24
131705	Pink noise generator	$14.95	$13.49	$11.95

Audio Spectrum Analyzer ▲

Visualizes the composition of an audio signal. You can use a microphone (P/N 112352, pg 52) and a pink noise generator (above) to adjust the equalizer to the acoustic behavior of the room and your speakers.

- Ten frequency bands 32 to 16kHz
- Requires 2 x 9VAC, 18VCT transformer (P/N 105531, pg 61) or 12 - 15VDC @ 1A
- PCB board size: 5.8"L x 3.2"W • Weight: 1.0 lb.

381 pc. Kit

Part No.	Product No.	Description	Price
129171	K4300	Spectrum analyzer $99.95	

Universal Start and Stop Timer ■

- Timer for applications requiring a delay up to 60 minutes
- Power requirements: 12VDC @ 55mA
- Time interval adjustable 0-15 min. (w/o modifications)
- PCB dimensions: 1.5"L x 2.7"W
- Weight: 0.5 lbs.

K2579

18 pc. Kit

Part No.	Description	1-4	5-9	10-24
120619	Start/stop timer $14.95		$13.49	$11.95

DC Controlled Dimmer ▲

This handy circuit is ideal for replacing an existing dimmer switch; and can be used in a control application via P/N 128928 interface board (pg 70).

- Supply voltage: 110V or 220-240V, 50 or 60Hz
- Can be used for 24VAC
- DC control voltage: 0-10VDC
- Maximum control current: 2.25mA @ 12V
- PCB size: 3.0"L x 2.0"W x 1.8"H • Weight: 0.4 lbs.

K8003

37 pc. Kit

Part No.	Description	1-4	5-9	10-24
128901	DC controlled dimmer **SALE**	$19.95		$17.95

JAMECO 2.5" High 6-Digit Clock Kit 🟦

105507 (JE725KIT)   183 pc. Kit

- Bright 2.5" high 6-digit displays (red)
- Can be viewed from over 50' away   **New Super-Bright LEDs!**
- 12 hour or 24 hour display switch
- Fast and slow set switches
- Time hold control switch • Safe low input voltage: 9VAC
- 105507 kit includes: PC board, components, wall transformer and kit instructions – 183 total pieces (case with red lens sold separately)
- Assembled kit shown below (109268)
- Kit PC board size: 17.5"L x 3.5"W • Weight: 1.2 lbs.

Part No.	Description	Price
105507	Digital clock kit .... **SALE**	$49.95

Enclosures for Digital Clock Kit (105507)

- Includes red lens, mounting hardware and easy-to-follow instructions (see enclosure below)   38 pc. Kit
- Black satin anodized aluminum
- Size: 18.0"L x 5.3"W x 1.4"H • Weight: 1.7 lbs.

Part No.	Product No.	Description	1-4	5-9
109241	JE725CEA	Enclosed case	$39.95	$35.95

Assembled Digital Clock 2.5" High 6-Digit Display

- Fully assembled JE725 digital clock in black satin anodized aluminum case   **New Super-Bright LEDs!**
- The clock's front lens can be custom silkscreened with your company's logo or an individual's name making it a great promotional item or gift. Call for details.
- Size: 18.0"L x 5.3"W x 1.4"H • Weight: 3.5 lbs.

Part No.	Product No.	Description	1-4	5-9
109268	JE725AEA	Assembled clock	$119.95	$107.95

Light Computer Kit 🔺   K5201

- 16 programs and 7 outputs turn this kit into a unique light producer for entertainment/display applications
- Supply voltage for lamps: 24VAC to 240VAC
- Circuit supply voltage: 7.5-9VAC/250mA
- PCB dimensions: 5.4"L x 3.1"W • Weight: 0.6 lbs.   122 pc. Kit

Part No.	Description		
127600	Computer light kit .... **SALE**	$44.95	

Voice Scrambler Kit 🟦
DECADE VIDEO PRODUCT Scramble & descramble audio information

Converts human speech into an unrecognizable garble. The descrambler mode restores the signal to fully intelligible speech.

- Audio output: 0.5 watt
- Sample rate: 8kHz
- Resolution: 8 bits   31 pc. Kit
- Power supply: ±5VDC @ 250mA, +12VDC @ 250mA
- Recommend power supply P/N 73613 (pg 72)
- Dimensions: 3.6"L x 3.1"W • Weight: 0.5 lbs.

Part No.	Description	1-4	5-9
70519	Voice scrambler kit .... **SALE**	$34.95	

JAMECO Electronic Kits

JE 2206 Function Generator Kit 🟦
Sine, triangle and square wave

Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular (saw-tooth), and square wave-forms at frequencies continuously variable from 1Hz to 100kHz.   21 pc. Kit
Requires 12VDC supply or ±6VDC split supply.
- 21 piece kit (chip, components, PC board, hardware)
- Recommend power supply P/N 20626 (below)
- Size: 4.1"L x 1.5"W • Weight: 0.1 lbs.

Part No.	Description	1-4	5-9	10-24
20685★	Function generator	$19.95	$17.95	$14.95

Dual Adjustable Power Supply Kit 🟦
± 5VDC to ± 15VDC @ 175mA to 750mA

- 48 piece kit (JE215) (components/hardware)   48 pc. Kit
- Adjustable positive and negative supplies ±5 to ±15VDC regulated, 175mA - 750mA per supply
- Positive and negative 5VDC to 15VDC
- Power output (each supply): 5VDC @ 750mA, 12VDC @ 500mA, and 15VDC @ 175mA
- 120VAC input • PC board construction
- LED on indicator • Includes easy to follow instructions
- Size: 5.1"L x 3.5"W x 2.0"H • Weight: 2.1 lbs.

Part No.	Description	1-4	5-9	10-24
20626★	Power supply kit ...	$19.95	$17.95	$15.95

Triple Voltage Power Supply Kit 🟦
+ 5VDC @ 1 Amp, +3 to +12VDC @ 100mA and -3 to -12 VDC @ 100mA

- Power output: Fixed + 5VDC @ 1 amp, adjustable +3 to +12VDC @ 100mA, adjustable -3 to -12VDC @ 100mA
- Input voltage: 120VAC @ 50/60Hz
- Fuse protected   103 pc. Kit
- PC board construction
- Size: 5.1"L x 5.1"W x 2.3"H • Weight: 2.1 lbs.

Part No.	Description	1-4	5-9	10-24
73613★	Power supply kit ...	$29.95	$26.95	$23.95

JE310 Fiber Optics Kit 🟦

Discover the intriguing principles of fiber optics data communications. The kit includes separate transmitter and receiver circuit boards, fiber optics cable and all connectors for interfacing cables with the circuit boards. Either a square-wave or TTL signal from 200Hz to 5kHz can be inputted.
- Requires 9 volt battery (not included)   30 pc. Kit
- Size: 4.1"L x 1.5"W x 0.3"H • Weight: 0.1 lbs.

Part No.	Description	1-4	5-9	10-24
21135★	Fiber optics kit	$19.95	$17.95	$15.95

Live Wire Detector 🟡   K7101

- Determine if a wire is live, detect wire within walls and terminating points
- Weight: 0.3 lbs.   33 pc. Kit

Part No.	Description	1-4	5-9	10-24
131692	Live wire indicator ..... **SALE**	$11.49	$9.95	

Digital Voice Recorder Kit 🟦
20-sec. single or multiple voice/sound recorder

- ISD 1420P voice chip
- Easy to use 3 button switches (start, record and play)   Front
- Flashing LED indicator alerts presence of message
- High quality, natural voice/audio reproduction   51 pc. Kit
- Zero power message storage   Back
- Requires four 1.5V "AAA" batteries or 9VDC wall transformer (P/N 130796, pg 63) – not included
- Board size: 4.6"L x 2.1"W • Weight: 0.3 lbs.

Part No.	Product No.	Description	1-4	5-9
116484	JE920KIT	Voice recorder kit ..	$49.95	$44.95

ELENCO Telephone Line Analyzer Test Kit 🟦

- See page 120 for complete specifications   26 pc. Kit

Part No.	Description	1-4	5-9
119378	Line analyzer kit................	$24.95	$22.49

ELENCO Transistor and Diode Tester Kit 🟦

- Black case • Weight: 1.0 lb.
- Size: 6.3"L x 3.8"W x 2.0"H

Transistor Mode: 76 pc. Kit
- Checks all transistors
- Identifies NPN and PNP, PN or NP junctions • Measures relative beta of two transistors
- Can test transistors in circuit with base or collector resistors as low as 100Ω

Diode Mode:
- Checks all diode types – silicon, power, leds and zener • Indicates cathode or anode leads of diode
- Operates in circuit with resistors 5K and above

Part No.	Description	1-4	5-9
119360	Transistor and diode kit .... **SALE**		$26.95

Compukit Breadboard Data Acquisition Module Kit 🔺

Connects your PC or Mac serial port to your project or other compukits assembled on a regular prototyping board.   48 pc. Kit
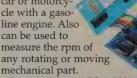- Use ASCII commands to send/receive data in decimal, hexadecimal or binary format
- Includes software and manual • Weight: 0.6 lbs.

Part No.	Description	1-4	5-9
127204	Compukit kit for breadboards .... **SALE**		$49.95

Digital Tachometer 🔺   K2625

This tachometer may be adapted to any car or motorcycle with a gasoline engine. Also can be used to measure the rpm of any rotating or moving mechanical part.   84 pc. Kit

- Supply voltage: 12VDC @ 200mA (P/N 100095, pg 63)
- CMOS technology • Resolution: 100 rpm
- Scale: 100 to 9900 rpm • Displays: 0.5" LEDS (2)
- PCB board size: 3.1"L x 2.3"W • Weight: 0.5 lbs.

Part No.	Description	1-4	5-9	10-24
129074	Digital tachometer....	$39.95	$35.95	$31.95

JAMECO $1.39 **SALE** Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
★ Also available at your local JIM-PAK retailer - see page 128
OEM Pricing Available!

OWi Electronic Kits

Hyper Peppy Beginner ○/Advanced Kits 🔺

Easy to build and assemble with basic hand tools. Hyper Peppy, a faster and zippier robot when comes in contact with an obstacle or hears a loud sound, will reverse itself and resume a different course.
- Condenser microphone
- Easy to assemble mechanical drive system
- Size: 12.0"L x 7.0"W x 3.5"H • Weight: 0.9 lbs.
- **140863:** Pre-assembled printed circuit board
- **145496:** Soldering required

Part No.	Description	1-4	5-9
140863	Hyper Peppy beginners kit	$24.95	$22.49
145496	Hyper Peppy advanced kit	24.95	22.49

Soccer Robot Beginners Kit ○

Buy two for tournament play!

Allows you to build this interactive robot with simple hand tools. Soccer robot has 6 operational kicking mechanisms. It runs forward, backward, turns left or right and executes 360 degree turns.
- Hardware for building the kit • Control box and ball
- Size: 12.0"L x 7.0"W x 3.5"H • Weight: 1.1 lbs.

Part No.	Description	1-4	5-9
140871	Soccer robot beginners kit	$34.95	$31.95

Mecha-Medusa Intermediate Kit 🔲

A walking robot that operates on the aid of sound sensor. By clapping your hands or snapping your fingers you can control this robot to start walking; it continues to walk until instructed by an internal timer to stop. Requiring only simple basic hand tools.
- Pre-assembled printed circuit board
- Easy to assemble drive kit system
- Condenser microphone • Weight: 0.9 lbs.

Part No.	Description	1-4	5-9
140847	Mecha-Medusa kit	$39.95	$35.95

Spider Advanced Kit 🔺

A robot that moves about avoiding obstacles by infrared ray sensing system. The infrared ray sensing system, composed of infrared ray emitter and infrared ray receiver, finds obstacles to go around and changes its direction.
- Infrared sensor including infrared diode/photo diode/IC
- 2 DC motors • Hardware for building the kit
- Size: 12.0"L x 7.0"W x 3.5"H • Weight: 1.2 lbs.

Part No.	Description	1-4	5-9
140821	Spider advanced kit	$59.95	$53.95

Line Tracker Advanced Kit 🔺

A robot that follows a black line on white paper with the use of a photo-interrupter which projects and receives infrared rays. While black absorbs infrared rays, white reflects them.
- Infrared sensor including infrared diode/photo diode/transistors/IC • 2 DC motors
- Hardware for building the kit
- Size: 12.0"L x 7.0"W x 3.5"H • Weight: 1.1 lbs.

Part No.	Description	1-4	5-9
140839	Line tracker advanced kit	**SALE**	$49.95

Crossbow Digital Accelerometer Interface Card

- Measures and observes acceleration, impact, tilt, vibration, and other acceleration-related physical phenomena
- Applications: data logging, system evaluation, R&D activities, computer control systems
- Simple digital interface for 1-axis P/N 141591 and 3-axis P/N 141575 accelerometers
- Plugs into any RS232 port 38.4K baud
- 400Hz maximum sampling rate
- Includes user friendly graphical software
- Requires 9VDC 500mA power supply male connector (not included) – recommend P/N 15561 for power supply (pg 63) & DE9 (male - female) cable – recommend P/N 25700 for DE9 cable (pg 127)
- Size: 3.0"L x 2.5"W x 1.3"H • Weight: 0.2 lbs.
- One-year warranty

Part No.	Description	1-4	5-9
141583	Digital interface card	$199.95	$179.95

Crossbow Accelerometer Module
1-Axis and 3-Axis

Applications: vibration analysis, tilt sensing, motion sensing, inertial guidance, virtual reality systems, crash sensing, shipping and transportation shock monitoring, active suspension, medical analysis, active noise cancellation.

141575

- High performance, small, and low cost
- Dynamic range, excellent frequency response, easy to interface to a standard acquisition systems
- Requires a 5VDC power supply (not included)
- Shielded cable: 2'L pigtail • One-year warranty
- Dimensions: 1.9"L x 1.0"W x 0.8"H • Weight: 0.1 lbs.

Part No.	Product No.	Axis	Current	1-4	5-9
141591	CXL04M1	One	8mA	$89.95	$79.95
141575	CXL04M3	Three	24mA	159.95	143.95

Jameco PCB Design Kit

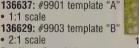- Kit includes donut pads, DIP patterns, artwork tapes, presensitized PCB with developer, knife with holder and blades, #9901/#9903 design templates (see below) and alpha/numeric lettering transfers • Wt.: 0.4 lbs.

Part No.	Description	Price
136611	Etch-kit, college level	$22.49

Electronic Design Templates

- Include symbols, components and center spacing layouts
- Weight: 0.1 lbs.
- **136637:** #9901 template "A"
- 1:1 scale
- **136629:** #9903 template "B"
- 2:1 scale

136637 **136629**

Part No.	Description	1-9	10-24
136637	#9901 template "A"	$6.95	$5.95
136629	#9903 template "B"	6.95	5.95

Digital Voice Module

For recording and reproduction of verbal messages without wear and distortion like a tape

- See page 17 for complete specifications

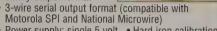| Part No.	Description	Price
124871	Digital voice module	$79.95

PRECISION NAVIGATION, INC.
Vector 2X Compass Module

- Applications: vehicle mapping and tracking, robotics, HAM radios, camera positioning
- 2° accuracy, 1° resolution
- 5Hz sampling rate
- Pin selectable BCD or binary output format
- 3-wire serial output format (compatible with Motorola SPI and National Microwire)
- Power supply: single 5 volt • Hard iron calibration
- Raw uncalibrated magnetometer output optional
- Master or slave capability for data clock generation
- Polled or continuous mode options
- Size: 1.5"L x 1.3"W x 0.4"H • Weight: 0.2 lbs.

Part No.	Description	1-4	5-9
126703	Vector 2X compass module	$49.95	$44.95

PRECISION NAVIGATION, INC.
Vector 2XT Gimbaled Compass Module

The Vector 2XT is a mechanically gimbaled version of the Vector 2X, where applications require some tilt compensation.
- Applications: autopilots, marine electronics, terrestrial antenna direction indicators, industrial navigation and more
- 2° accuracy, 1° resolution
- Dynamic range: ±15° • 5Hz sampling rate
- Pin selectable BCD or binary output format
- 3-wire serial output format
- Power supply: single 5 volt
- Temperature range: -20°C to +70°C
- Master or slave capability for data clock generation
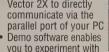- Size: 2.5"L x 1.3"W x 0.6"H • Weight: 0.2 lbs.
- One-year warranty

Part No.	Description	Price
132901	Vector 2XT compass module	$99.95

PRECISION NAVIGATION, INC.
Vector 2X Developers Kit

- Development board which allows your Vector 2X to directly communicate via the parallel port of your PC
- Demo software enables you to experiment with the different functions of the Vector 2X without first having to design an SPI interface to a microprocessor
- P/N 126703 (above) module not included
- Size: 3.3"L x 2.2"W x 0.6"H • Weight: 0.7 lbs.

Part No.	Description	1-4	5-9
126691	Vector 2X developer kit	$99.95	$89.95

Distance Sensor Module

This module sends out a sound wave 20 times per second and calculates the distance based on the time from send to receive back. The distance is represented by an output voltage from 0 to 10VDC.
- Sensing range: 4" to 60"
- Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")
- Requires 15 to 24VDC @ 40mA (not included), recommend P/N 114825 (pg 63)
- Board size: 2.8"L x 1.8"W x 0.9"H • Weight: 0.2 lbs.
- Sensor diameter: 1.8" • One-year warranty

Part No.	Description	Price
134105	Distance sensor	$159.95

Datak ER4 PHOTO ETCH™ Printed Circuit Kit

Use this kit to generate your own 1:1 artwork, then use the patented Pos-Neg™ process to make a photo negative, sensitize and expose a blank copper board, then develop and etch it. Like to build magazine projects? Make a film positive and negative from the magazine PC art illustration, expose your sensitized copper board and etch. The magazine page is not destroyed in this process. No darkroom or camera is required. Circuits may also be direct-etched as with the ER1. All necessary materials, except the light source, are included (see ER19 below.)

You receive a steel 5" x 6" print frame, Pos-Neg™ film, film processing pack, yellow filter, 4 oz. negative photo resist, 16 oz. resist developer, blank copper circuit boards, dry concentrated etchant, 1:1 resist patterns and tapes, and complete instructions.
• Weight: 3.9 lbs.

*Shipped via UPS ground to continental U.S. only.

Part No.	Product No.	Description	1-4	5-9
16731	ER4*	Printed circuit (complete)	$39.95	$36.95

Datak ER4 Refills and Accessories
Datak ER1 Direct Etch "Starter" Set

The ER1 Direct Etch set includes 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIPS, patterns, lines, 1/32" and 1/16" etch resist tape. (see DE973 for an even larger pattern assortment) • Weight: 0.7 lbs.

Part No.	Product No.	Description	1-9	10-24
70412	ER1	Printed circuit start kit	$11.95	$10.95

Datak ER39 Photo Etch Light Bulb

The ER-39 floodlamp is intended for use in exposing Datak Printed Circuit products, including the new Negfast© reversing film, positive acting, pre-coated boards and those that are user sensitized with the ER-71 negative acting resist coating. Now, one bulb can do it all.
• Weight: 0.4 lbs.

NEW

Part No.	Product No.	Description	1-9	10-24
146501	ER39	Exposure lamp	$11.95	$10.95

Datak ER11 Copper Clad Circuit Boards

Set contains one 5" x 6" and one 3" x 4.5" (copper clad one sided) 1/16" phenolic circuit board.
(The ER11 is supplied in the ER4 kit.) • Weight: 0.2 lbs.

Part No.	Product No.	Description	1-9	10-24
16707	ER11	Copper clad circuit boards	$4.95	$4.49

Datak ER3 Dry Concentrated Etchant

1/4 pound of anhydrous ferric chloride in a vapor-tight package makes one pint of etch solution, enough to etch 200 square inches of copper-clad circuit board. Material has substantially more etch capacity than ammonium persulfate etchants. (The ER3 is supplied in the ER1 and ER4 kits.) • Weight: 0.3 lbs

Part No.	Product No.	Description	1-9	10-24
70201	ER3	Dry concentrated etchant	$3.95	$3.49

Datak Additional Accessories

16758   70261   16723

Part Number	Product Number	Description	Wt. (lbs.)	1-9	10-24
16758	ER8*	Negative acting resist developer, 16 oz.	1.2	$6.95	$6.25
16723	ER18	TINNIT™, 1 pint	0.2	6.95	6.25
70261	ER71*	Negative-acting photo resist liquid, 4 oz.	0.5	8.95	7.95
70480	ER181	TINNIT™, 1/2 gallon size (bulk pack)	0.6	15.95	14.49
70498	DE973	Direct Etch™ Dry Transfers asst.	0.2	29.95	26.95

*Shipped via UPS ground to continental U.S. only.

Tech Spray Cleaners

New Tech Spray Product – see inside Front Cover!

• EPA SNAP approved, no CFCs or HCFCs
• Safe on plastics

118050   118041   118033   118025
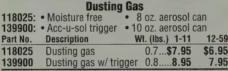
• NOTE: Shipped via UPS ground only except P/N 139918

139942   139926   139934   139918

Dusting Gas

118025: • Moisture free   • 8 oz. aerosol can
139900: • Acc-u-sol trigger   • 10 oz. aerosol can

Part No.	Description	Wt. (lbs.)	1-11	12-59
118025	Dusting gas	0.7	$7.95	$6.95
139900	Dusting gas w/ trigger	0.8	8.95	7.95

Cleaner Degreaser
• Rapid evaporation • 10 oz. aerosol can • Weight: 0.8 lbs.

118050	Cleaner degreaser	$7.95	$6.95

Flux Remover
• Dissolves type R, RMA, RA, SA and most no-clean fluxes • 10 oz. aerosol can • Weight: 0.8 lbs.

118041	Flux remover	$7.95	$6.95

Contact Cleaner
• Ideal for switches, relays, contact pads and other places of electrical connections
• Solvent will not damage switch housings
• 10 oz. aerosol can • Weight: 0.9 lbs.

118033	Contact cleaner	$7.95	$6.95

Zero Charge® Mat & Table Top Cleaner
Leaves an anti-static agent that helps prevent static charge build-up.
• 1 pint w/ trigger in plastic bottle • Weight: 1.2 lbs.

139942	Mat & table top cleaner	$8.95	$7.95

Blue Shower® II Degreaser
Non-flammable and safe on plastics. For precision cleaning of polar and non-polar soils.
• 8 oz. aerosol can • Weight: 0.7 lbs.

139926	Blue Shower® II degreaser	SALE $14.95

Envi•Ro•Tech™ Freezer
A rapidly evaporating liquid that can chill to -62°F.
• 10 oz. aerosol can • Weight: 0.8 lbs.

139934	Envi•Ro•Tech freezer	$7.95	$6.95

Label & Adhesive Remover
• 2 oz. bottle • Weight: 0.1 lbs.

139918	Label & adhesive remover	$5.95	$5.35

Jameco Protective Coiled Wrist Grounding Strap

New lotion – see inside Front Cover!

• Comfortable, adjustable Velcro wrist strap
• The coiled cord has banana plug and alligator clips
• Includes a 1MΩ resistor for added safety
• Extended cord: 9' long
• Color: black • Weight: 0.1 lbs.

Part No.	Description	1-9	10-99	100+
34551★	Anti-static strap	$6.95	$6.25	$5.75

Jameco Anti-Static Heel Strap
• Discharges static without restricting your mobility
• Ideal for anyone handling static sensitive devices
• Ground strap: 15.5"L
• Color: black • Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-99
100327	HG2	Heel strap	$5.95	$5.35

Jameco Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive looking semiconductive vinyl that provides adequate discharging, yet will not short leads or pins.
• Includes grounding clip (P/N 10575 and 10583)/terminal (P/N 101901)

Clean your mat!

101901

Part No.	Dimension	Wt. (lbs.)	Color	1-9	10-99
10575	11.3" x 22"	0.7	gray	$7.95	$6.95
101901★	16.0" x 24"	2.0	beige	9.95	8.95
10583	19.5" x 23.5"	1.1	gray	11.95	10.95

Part No.	Description	1-11	12-59
139942	Mat & table top cleaner	$8.95	$7.95

Jameco Conductive Anti-Static Foam and Bags
Don't get zapped!
Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.

13864   78668

• For safe storage of static sensitive devices
• Size: (13864) 24.0"L x 12.0"W x 0.3"H

Part No.	Description	Wt. (lbs.)	1-9	10-99	100+
13864	Anti-static foam	0.1	$9.95	$8.95	$7.25
78668	4x6 anti-static bags	.01	.35	.25	.19
78650	8x10 anti-static bags	.02	.59	.49	.39

Jameco Anti-Static Touch Pad
• Pad has 1MΩ of resistance
• Coiled ground strap with removable alligator clip, 6'L
• Color: blue • 15.0"L x 0.5"W • Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-99
20327	JE1215	Anti-static pad	$4.49	$3.95

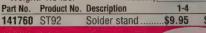## Jameco Solder Stand
• 12 pc. solder stand (some assembly required)
• Size: 3.6"W x 3.9"D x 4.3"H
• Shaft diameter: 0.6"
• Weight: 1.6 lbs.

Shown w/ solder (not included)

Part No.	Product No.	Description	1-4	5-9
141760	ST92	Solder stand	$9.95	$8.95

and Jameco Rosin Core Solder Rolls & Pocket Pak

- Non-corrosive
- Non-conductive

Part No.	Manufacturer	% Composition Tin	Lead	Silver	Dia. (In.)	Wt. (lbs.)	Pkg.	1-9	10-49	50-99
73576	Kester	60	40	0	.031	0.04	pak	$1.49	$1.25	$.99
32117	Kester	60	40	0	.031	1.0	roll	11.95	10.75	9.75
73605	Kester	62	36	2	.020	0.10	roll	2.95	2.75	1.95
112344	Kester	63	37	0	.020	1.1	roll	15.95	14.49	13.95
141807	Jameco	60	40	0	.031	0.22	roll	2.95	2.65	2.39
141794	Jameco	60	40	0	.031	0.55	roll	4.95	4.49	3.95
141786	Jameco	60	40	0	.031	1.1	roll	9.95	8.95	7.95
141778	Jameco	60	40	0	.031	2.2	roll	16.95	15.49	13.95

Rosin Paste Flux

A highly active non-corrosive flux with excellent wetting action. Specifically for electrical/electronic applications. Permits soldering of even difficult metals such as brass or nickel. Non-corrosive and electrically non-conductive.
- Weight: 0.2 lbs.

Part No.	Description	1-9	10-99	100+
73584	Rosin paste flux	$1.29	$1.09	$.99

Lead-Free Solder Tip Tinner

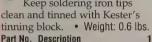Use will prevent oxide buildups and tin depletion on the tip which will increase tip life, and heat transfer resulting in a better solder joint!
- 0.7 oz. tin with self adhesive pad
- Weight: 0.06 lbs.

Safe and Effective!

Part No.	Description	1-9	10-49	50-99
132986	Lead-free tip tinner	$4.95	$4.49	$3.95

Tinning Block Roll

Keep soldering iron tips clean and tinned with Kester's tinning block. • Weight: 0.6 lbs.

Part No.	Description	1-9	10-49	50-99
94596	Tinning block	$2.95	$2.49	$2.25

Jameco Solder Wicks

- Easy to use handy dispenser
- Braided copper with flux
- Weight: 0.03 lbs.

41099

Part No.	Description	1-9	10-99	100+
41081	.079"W solder wick (5')	$.99	$.79	$.65
41099	.098"W solder wick (5')	.99	.79	.65

No-Clean Solder Wicks

Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002. • Length: 5'

124126   124118

124126: • Weight: 0.01 lbs.
124118/139951: • Weight: 0.02 lbs.

Part No.	Description	1-9	10-99	100+
139951	Solder wick .030"	$2.25	$1.95	$1.75
124126	Solder wick .060"	2.25	1.95	1.75
124118	Solder wick .085"	2.25	1.95	1.75

Jameco Glue Gun and Sticks

- Will adhere to PCBs, cardboard, wires, metal
- Silicon nozzle
- Electronic heating system
- UL/CSA listed
- Automatic trigger action
- Utilizes long glue sticks (100mm)
- Size: 7.3"L x 6.3"W • Weight: 0.8 lbs.

72696

Part No.	Description	1-4	5-9
72696	Glue gun	$12.95	$11.49
78633	Glue sticks (100mm - 6/pk)	2.95	2.49

Heavy Duty Magnifying Lamp

High quality magnifying lamp, with adjustable arm and clamp for attaching lamp to tables and desks.
- 45" extension arm
- Supplied with 22 watt Circline tube
- New wire clip design permits easy installation
- Power requirement: 110VAC/60Hz
- 3-diopter lens included • Weight: 7.3 lbs.

Part No.	Description	1-4	5-9	10-24
100829	Magnifying lamp	$59.95	$53.95	$49.95

Standard Adjustable Magnifying Lamp

- Large magnification; 4"Dia. 3-diopter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- Large magnification
- Power requirement: 110VAC/60Hz
- Weight: 2.9 lbs.

Part No.	Description	1-4	5-9	10-24
22710	Magnifying lamp	$29.95	$26.95	$23.95

2 Piece Electronic Inspection Set

- For visual inspection of inaccessible locations
- Sharp metal pick (0.1"Dia. x 6.0"L) – great for PCB re-work
- Bent mirror tool (0.1"Dia. x 6.8"L) – for visual inspection • Weight: 0.1 lbs.

Part No.	Description	1-9	10-49
72514	Electronic inspection set	$3.95	$3.49

Jameco Heat Gun

- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Can thaw pipes, frozen locks, loosen rusted bolts
- UL listed • Weight: 1.8 lbs. • Size: 9.3"L x 7.0"W

Part No.	Description	1-4	5-9
76865	Heat gun	$39.95	$35.95

Weller Soldering Station

- Temperature adjustable 350°F - 850°F
- Zero-voltage circuit ensures that no high voltage spikes or magnetic fields are present at the tip to damage sensitive components
- Meets all government specifications including Mil STD 2000 (Model WCC100)
- Lighted on/off switch • Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
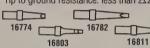- 40 watt pencil is fitted with an ETA tip
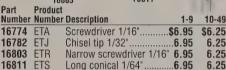- Size: 6.0"L x 4.5"W x 3.8"H • Weight: 1.9 lbs.
- UL Listed • One-year warranty

Part No.	Description	1-4	5-9
34497	Soldering station	**SALE**	$119.95

Weller Soldering Tips For WCC100

- Tip leakage: less than 2mV • Wt.: .02 lbs.
- Tip to ground resistance: less than 2Ω

16774   16782   16803   16811

Part Number	Product Number	Description	1-9	10-49
16774	ETA	Screwdriver 1/16"	$6.95	$6.25
16782	ETJ	Chisel tip 1/32"	6.95	6.25
16803	ETR	Narrow screwdriver 1/16"	6.95	6.25
16811	ETS	Long conical 1/64"	6.95	6.25

No Clean SMD Repair Kit

Kit includes: • 186 flux pen
- 245 no-clean flux cored solder
- Lead free ultrapure tip tinner
- 951 no-clean braid
- Vacuum handling tool w/ vacuum probe
- 1/8", 1/4" and 3/8" cups
- Weight: 0.2 lbs.

Part No.	Description	1-4	5-9
143298	No-clean SMD repair kit	**SALE**	$19.95

CHIPQUIK® SMD Removal Kit

- Quick and easy to use
- Uses simple equipment and materials for application and clean-up
- Potential damage to printed circuit board are eliminated
- 2.5' of CHIPQUIK® material removes 1250-1500 SMD pins • Weight: 0.1 lbs.

SALE

Part No.	Description	1-4	5-9
141305	SMD removal kit	**SALE**	$17.95

Multifunction Heating Tool Kit

Multifunction hobby tool for soldering, woodburning, leather crafts and stencil cutting; works as a hot knife.
- 120VAC, 25W heating element
- Contains the following tips:
  - Three solder tips: Cove type, fine point, chisel type
  - Hot knife holder blade
  - Four craft tips: general purpose point, grading point, script point, dot point
- Includes solder & heating tool stand • UL, CSA listed
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	Price
129015	Multifunc. heating tool	$14.95

WAHL® Cordless Soldering Irons
- Tip reaches temperature 900°F
- Iron performance equivalent to 25 watt iron
- Includes soldering iron, recharging stand, Ni-Cad battery pack, and tips
- One-year warranty

IsoTip® Quick Charge Soldering Iron
Model #7700
132775
- Recharges in 3–4 hours
- Solders up to 20 minutes continuous or 120 joints per charge
- Weight: 1.1 lbs.

Part No.	Description	Price
132775	Quick-charge cordless iron	$39.95

IsoTip® Power Pro Soldering Iron
Model #7904: (UL)
The #1 choice for field service soldering!
- Solders 200+ joints or up to 30 minutes of continuous soldering • Recharges in 3–4 hours
- LED indicator light • Weight: 1.1 lbs.

Part No.	Description	Price
132783	Power Pro cordless iron	$59.95

IsoTip® Soldering Iron '60'
Model #7800: (UL)
- Up to 125 electronic joints per charge
- Charges from full discharge state to full charge in 60-minutes • Weight: 1.4 lbs.

Part No.	Description	Price
127853	Cordless soldering iron	$54.95

7 Piece Soldering Aid Kit

100503
100378
100503 contains:
- Soldering wick
- 3 piece scraper set
- Acid brush • Clip on heat sink • Empty squirt bottle

Part No.	Description	Wt. (lbs.)	1-9	10-49	50-99
100378	Clip on heat sink	0.01	$.59	$.49	$.39
100503	Soldering kit	0.2	6.95	6.25	4.95

E-Z Tweez SMD Rework Tweezers Station
ESD Safe
- Fast and efficient removal of "in line" surface mount components
- Temperature range: 482°F to 842°F
- Output power: line voltage
- Electronically controlled to +9°F of idling
- Power consumption: 90W
- Size: 7.9"L x 5.1"W x 3.9"H • Weight: 2.5 lbs.

FTP

Part No.	Description	Price
138931	SMD rework tweezers	SALE $149.95

SMD Tweez Iron (UL)
- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Heater insulation exceeds 100MΩ
- 120VAC • UL approved
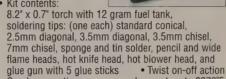- Heater power consumption: 35W x 2
- Max. temperature: 760°F

137031
137058
137066
137040

Part No.	Product No.	Description	Wt. (lbs.)	1-4	5-9
137031	TWZ226	Iron	1.0	$89.95	$80.95
137058	XY55	Tip .079"	0.1	19.95	17.95
137066	XY56	Tip .393"	0.1	19.95	17.95
137040	XY57	Tip .590"	0.1	19.95	17.95

6-in-1 Multipurpose Torch Kit & Iron
This torch works as a soldering iron with interchangeable tips and interchangeable heads for flames, heat and a blower.
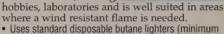- Uses standard butane fuel (not included)
- Kit contents:
8.2" x 0.7" torch with 12 gram fuel tank, soldering tips: (one each) standard conical, 2.5mm diagonal, 3.5mm diagonal, 3.5mm chisel, 7mm chisel, sponge and tin solder, pencil and wide flame heads, hot knife head, hot blower head, and glue gun with 5 glue sticks • Twist on-off action
- One-hour continuous use per charge at up to 2370°F and two hours up to 750°F • Includes manual
- Case size: 9.4"L x 5.8"W x 1.2"H • One-year warranty
- Weight: P/N136012: 1.0 lb., P/N 136004: 0.4 lbs.

Part No.	Description	Price
136012	6-in-1 torch kit	Closeout $39.95
136004	2-in-1 soldering iron (only)	19.95

Pocket Jet Torch
This hand size torch is an excellent tool for household uses, brazing, hobbies, laboratories and is well suited in areas where a wind resistant flame is needed.
- Uses standard disposable butane lighters (minimum /maximum height: 2.92"/3.04" – not included)
- Piezo electronic ignition system with safety lock design
- 1300°C/2400°F wind resistant jet flame • Weight: 0.2 lbs.
- Size: 4.4"L x 2.3"W x 0.8"H • One-year warranty

Part No.	Description	1-4	5-9
135992	Pocket torch	$12.95	$11.49

Electronic Micro Torch with Safety Lock
- Instant ignition
- Runs appr. 90 min. per butane fill (butane not included)
- Maximum temperature: 1300°C/2370°F
- Adjustable flame from 12mm to 32mm
- Size: 1.4"W x 3.5"D x 5.9"H (at nozzle)
- Weight: 0.7 lbs. • One-year warranty

Part No.	Description	1-4	5-9
138958	Electronic micro torch	SALE $35.95	

Jameco Electric and Non-Electric Desolder Pumps
- Easily disassembled for cleaning
- One-hand operation
- Replacement tips available
- UL listed (P/N 19254)
- Size: (P/N 19166): 7.8"L x 0.8"Dia. Weight: 0.2 lbs. (P/N 19254): 10.5"L x 1.0"Dia. Weight: 0.5 lbs.

19166
19254

Part No.	Description	1-4	5-9
19254	Electric desolder pump	$29.95	$26.95
19166★	Non-electric desolder pump	4.95	4.49
22091	(2) tips for 19166	2.49	1.95
19262	(1) tip for 19254	4.95	2.95

Jameco Soldering Irons and Stand
- 110-120VAC
- UL approved
- 30 watt
- Length: 8.3"
- 1/4" removable tip • Ideal for precision work
- One-hand operation • Weight: 0.3 lbs.

102461

Part No.	Description	1-4	5-9
102461★	30W soldering iron	$3.95	$3.49
116020	Replacement tips for 102461 (2)	1.95	1.49
36329	Soldering stand (pg 77)	3.95	3.49

One-Shot Desoldering Gun
This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering through-hole components.
- Ergonomic, lightweight design • 120VAC
- Interchangeable standard tips – 1.0mm tip included
- Power consumption: 60W
- Zero static tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control • One-year warranty
- Gun casing size: 7.0"L x 4.0"W • Weight: 2.2 lbs.

Part No.	Product No.	Description	1-4	5-9
129066	XY2008	Desoldering gun	$129.95	$116.95
140214	XY2008ADP	"Y" replacement	7.95	6.95
134594	XY53	1.0mm replace. tip	7.95	6.95
134607	XY54	1.2mm replace. tip	7.95	6.95

Thermally Balanced Soldering Iron
(UL)
The electer 200 GX is a thermally balanced soldering iron for the professional or hobbyist.
- 120VAC; 6' cord • 25 watt power consumption
- Interchangeable tips (pg 77)
- 1.6mm conical tip included • One-year warranty
- UL listed • Length: 8.0" • Weight: 0.6 lbs.

Part No.	Product No.	Description	1-4	5-9
129040	XY200GX	25W solder. iron	$19.95	$17.95

Electronic Temp-Control Soldering Station
The AUTO-Temp 369 offers the ultimate in temperature controlled hand soldering providing rapid heat-up and heat recovery.
- Temperature control: 500°–800°F
- Circuit protects voltage and current sensitive ICs from voltage spikes • Power LED indicator
- Power consumption: 45W at 650°F • UL listed
- See below for replacement sponge (P/N 134631)
- Includes one 1/16" tip • One-year warranty
- Size: 7.2"L x 4.7"W x 3.0"H • Weight: 2.3 lbs.

Part No.	Product No.	Description	1-4	5-9
129058	XY369	Soldering station	$69.95	$62.95
134623	XY40	1/64" extra fine tip	4.95	4.49
134615	XY39	1/16" fine conical tip	4.95	4.49

Accessory Sponges
- P/N 134640 for models XY168, XY1683 & XY1683C
- P/N 134631 for models XY960, XY369, and XY100S

Part No.	Product No.	Description	1-9	10-24
134640	SP815	48x48mm sponge	$1.95	$1.75
134631	SP715	48x52mm sponge	1.95	1.75

Digital Display Soldering Station

VALUE

The XY960 Digital Display Soldering Station is designed for soldering situations where precise temperature is required for sensitive components.
- Easy to read .560"H 3-digit LED readout
- Temperature is maintained at ±6°F tolerance of the set temperature
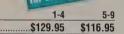- Electronic temperature control from 200°F to 878°F
- Zero-voltage thyristor switching protects voltage and current sensitive devices such as CMOS ICs against voltage spikes
- Power-on and Heater-on LED indicators • Power consumption: 60 watts
- UL listed • Includes one 1/16" tip (P/N 35115 – below)
- See opposite page for replacement sponge (P/N 134631)
- Size: 5.1"W x 8.0"D x 4.0"H • Weight: 4.6 lbs.

See page 75 for solder wick

Part No.	Product No.	Description	1-4	5-9
35351	XY960	Digital display soldering station	$129.95	$116.95

Combo Soldering/Desoldering Station and Desoldering Station

- XY968D: Digital Fahrenheit/Centigrade read out
- XY968D/XY999SDA: Anti-Clog/Energy Saver
- Maintenance free, quiet operation
- Simple fine tune feature to select 300°F – 850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- Spike control feature protects current sensitive components such as CMOS ICs
- Rapid heat-up/recovery design sensor monitors tip to detect extremely small temperature deviations
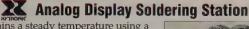- See opposite page for replacement sponge (P/N 134631) • One-year warranty

FTP

125508 (Desolder Station) Size: 9.2"L x 7.2"W x 3.6"H

125516 (Combo Solder/Desolder) Size: 11"L x 10"W x 4"H

Part No.	Product No.	Description	Weight (lbs.)	Price
125508	XY968D	Desoldering station	13.1	$349.95
125516	XY999SDA	Soldering/desoldering station	18.1	SALE 489.95

Electronic Temperature Controlled Soldering Station

ESD Safe!

- Tip temperature electronically controlled to ±6°F of idling
- Adjusts from 300°F to 850°F with no change to tip or heating element
- Transformer isolates line transients and spikes
- Heater output: 24VAC • ESD safe
- Heater power: 60W • UL approved

FTP

Part No.	Product No.	Size (W x D x H)	Weight (lbs.)	Price
138923	XY960AESD	5.1" x 8.0" x 4.0"	4.6	SALE $149.95

Analog Display Soldering Station

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.
- Electronic temperature control from 300°F to 850°F

FTP

- Zero-voltage thyristor switching protects voltage and current sensitive devices such as CMOS ICs against voltage spikes
- Power-on and Heater-on LED indicators
- Power consumption: 60 watts
- Includes one 1/16" tip (P/N 35115 – below)
- See opposite page for replacement sponge (P/N 134640) • Size: 4.3"W x 6.0"D x 3.4"H
- Weight: 4.1 lbs. • UL listed

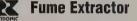| Part No.	Product No.	Description	1-4	5-9
114569	XY1683C	Analog display station (w/ solid tip)	SALE	$89.95

Soldering Iron and Stand

116572:
- 16-30 watt variable
- Length: 7.5" Weight: 0.6 lbs.

36329:
- Black anodized steel base – 5.3"L x 3.3"W • Includes sponge
- See opposite page for replacement sponge (P/N 134631)
- Fits most soldering irons .85" diameter • Weight: 0.5 lbs.

116572

36329

Part No.	Product No.	Description	1-4	5-9
116572	JSI258	16-30W variable soldering iron	$19.95	$17.95
36329	100S★	Soldering stand	3.95	3.49

Fume Extractor

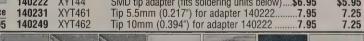**Absorbs noxious lead fumes using activated-carbon filter and a high efficiency fan**
- Designed to operate continuously providing filtered air
- Compact size allows use on work bench w/ minimum space
- Aerodynamic hood design for effective removal of solder fumes • 120VAC, 60Hz, 22 watt
- On/off power switch • Airflow: 115CFM
- Black anodized aluminum case • Noise: 49dB fan
- Includes detachable power cord • Fuse protected
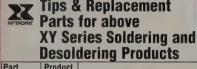- Removable carbon impregnated filter
- Static ground jack • Size: 6.4"W x 4.6"D x 7.9"H • One-year warranty

120150

Part No.	Product No.	Description	Weight (lbs.)	1-4	5-9
120150	FX426DLX	Fume extractor	4.60	$89.95	$79.95
127183	FX426F	Replacement filter	0.02	7.95	6.95

SMD Adapter and Flat Pack Soldering Tips

140231

- For irons P/Ns 35351, 114569, 125516 and 138923 • Wt.: .03 lbs.

Part No.	Product No.	Description	1-9	10-24
140222	XYT44	SMD tip adapter (fits soldering units below)	$6.95	$5.95
140231	XYT461	Tip 5.5mm (0.217") for adapter 140222	7.95	7.25
140249	XYT462	Tip 10mm (0.394") for adapter 140222	7.95	7.25

Tips & Replacement Parts for above XY Series Soldering and Desoldering Products

Figure 1   Figure 2   Figure 3   Figure 4   Figure 5   Figure 6   Figure 7   Figure 8   Figure 9   Figure 10

Part Number	Product Number	Description	Wt. (lb.)	Fig.	JSI258	XY168*	XY1683*	XY1683C	XY960/AESD	XY966D*	XY968D	XY999SDA	XY2660*	XY200GX	1-9	10-24
35078	XY1	Soldering tip - semi-chisel 1/32"	.02	1	✓	✓		✓	✓			✓		✓	$3.95	$3.49
35115	XY2	Soldering tip - conical chisel 1/16"	.02	2	✓	✓		✓	✓			✓		✓	3.95	3.49
35238	XY3	Soldering tip - semi-chisel wide 1/8"	.02	1	✓	✓		✓	✓			✓		✓	3.95	3.49
35326	XY5	Soldering tip - conical bevel 1/32"	.02	3	✓	✓		✓	✓			✓		✓	3.95	3.49
35334	XY6	Soldering tip - conical sharp 1/64"	.02	4	✓	✓		✓	✓			✓		✓	3.95	3.49
35140	XY21	Soldering tip - conical chisel 1/16"	.02	5			✓						✓		Closeout	2.95
35191	XY25	Soldering tip - conical sharp 1/64"	.02	6			✓						✓		4.95	4.49
35297	XY37	Heating element- (nichrome) for iron assembly	.05	7		✓		✓	✓			✓			19.95	17.95
35318	XY48	Soldering iron assembly - 60W w/ nichrome heater	.40	8		✓		✓	✓			✓			29.95	26.95
127634	XY50	Desoldering tip - 1.0mm (.0394")	.01	9						✓	✓	✓			7.95	6.95
127642	XY51	Desoldering tip - 1.2mm (.0472")	.01	9						✓	✓	✓			7.95	6.95
127651	XY52	Desoldering tip - 1.5mm (.0586")	.01	9						✓	✓	✓			7.95	6.95
140222	XYT44	SMD tip adapter (tips available above)	.03	10				✓	✓			✓			6.95	5.95

*For Model Numbers (*Previous Models)*

NOTE: The Manufacturers of the Data Books do NOT print new books each year. We will carry the most current editions.

Ⓜ MOTOROLA DATA BOOKS

Analog/Interface ICs (1995)
Presents detailed technical information on Motorola's linear and interface ICs. Products are divided into 10 sections with its own comprehensive selector guide. Includes cross reference list. 2 volumes (636 pages)
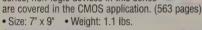• Size: 7" x 9" • Weight: 5.2 lbs.

Part No.	Description	1-4	5-9
119829	Analog/Interface IC Book	$23.95	$21.49

CMOS Logic Data Book (1991)
Presents technical data for Motorola's broad line of Metal-Gate CMOS Logic ICs. Includes data sheets. Product selector guide and handling and design guidelines chapter are included for further information. Includes data on all the logic circuits from the MC14000 series; non-logic devices in this series are covered in the CMOS application. (563 pages)
• Size: 7" x 9" • Weight: 1.1 lbs.
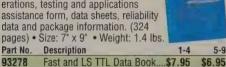
Part No.	Description	1-4	5-9
93251	CMOS Logic Data Book	$7.95	$6.95

Fast and LS TTL Data Book (1992)
Circuit characteristics, design considerations, testing and applications assistance form, data sheets, reliability data and package information. (324 pages) • Size: 7" x 9" • Weight: 1.4 lbs.

Part No.	Description	1-4	5-9
93278	Fast and LS TTL Data Book	$7.95	$6.95

M68HC05 Applications Guide (1996)
Provides a basic but thorough introduction to the operation of microcontrollers, followed by a chapter describing the architecture, addressing modes, instruction set, communications and timer of the MC68HC705C8. (286 pages) • Size: 7" x 9" • Weight: 0.6 lbs.

Part No.	Description	1-4	5-9
119845	M68HC05 Applicat. Guide	$6.95	$5.95

M68HC11 Reference Manual (1991)
A valuable aid in the development of M68HC11 applications. Detailed descriptions of all internal sub-systems have been developed and checked against Motorola's internal design documentation. (477 pages)
• Size: 7" x 9" • Weight: 2.0 lbs.

Part No.	Description	1-4	5-9
119853	M68HC11 Ref. Manual	$8.95	$7.95

Communications Devices (1995)
• 1325 pages • Size: 7" x 9" • Weight: 2.8 lbs.

Part No.	Description	Price
126383	Communications Data Book	$14.95

Optoelectronics Device (1995)
• 373 pages • Size: 7" x 9" • Weight: 0.9 lbs.

Part No.	Description	1-4	5-9
93235	Optoelectronics Device Book	$6.95	$5.95

M68000 Programmer's Reference (1992)
• 636 pages • Size: 7" x 9" • Weight: 2.0 lbs.

Part No.	Description	1-4	5-9
119861	M68000 Program. Ref.	$8.95	$7.95

M68000 8/16/32-Bit Microprocessors (1995)
• 196 pages • Size: 7" x 9" • Weight: 0.5 lbs.

Part No.	Description	Price
119870	M68000 Microprocess. Book	$6.95

Fast Static RAM BiCMOS, CMOS and Module (1995)

Part No.	Description	Price
93243	FS RAM BiCMOS, CMOS & Module	$8.95

TEXAS INSTRUMENTS ⋔ DATA BOOKS

TTL Logic Data Book (1988)
Contains specifications and technical information on a broad line of TTL integrated circuits including: Standard TTL circuits and Schottky TTL circuits. (1240 pages)
• Size: 6.0" x 8.5" • Weight: 2.6 lbs.

Part No.	Description	Price
88225	TTL Logic Data Book	SALE $24.95

Power Supply Circuits Data Book (1996)
This data book is a showcase of TI's growing line of analog components for power supply designs. (1040 pages) • Size: 7.5" x 9.3" • Weight: 2.8 lbs.

Part No.	Description	Price
130139	Power Supply Circuits	$24.95

Data Acquisition Circuits (1995)
Provides you with information on dual-slope analog-to-digital converters (ADC), successive-approximation semi-flash, and flash ADC converters. (1160 pages)
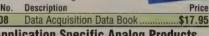• Size: 7.5" x 9.3" • Weight: 3.2 lbs.

Part No.	Description	Price
88305	Linear Circuits Vol.2	$17.95

Ⓝ National Semiconductor DATA BOOKS

Data Acquisition Book (1995)
Data acquisition systems, active filters, analog switches and multiplexers, A-to-D and D-to-A converters, sample and hold, temperature sensors, voltage references and surface mount. (958 pages)
• Size: 7" x 9" • Weight: 3.0 lbs.

Part No.	Description	Price
41208	Data Acquisition Data Book	$17.95

Application Specific Analog Products Data Book (1995)
Audio circuits, radio circuits, video circuits, display drivers, clock drivers, frequency synthesis, special automotive, special functions, surface mount, appendices/physical dimensions. (1250 pages)
• Size: 7" x 9" • Weight: 2.4 lbs.

Part No.	Description	1-4	5-9
79089	Appl. Spec. Analog Data Book	$15.95	$14.49

Power ICs Data Book (1995)
Linear voltage regulators, low dropout voltage regulators, switching voltage regulators, motion control, peripheral drivers, high current switches, surface mount, appendices/physical dimensions. (800 pages) • Size: 7" x 9" • Weight: 1.4 lbs.

Part No.	Description	Price
79062	Power IC's Data Book	$11.95

Ethernet Data Book (1996)
Includes an introduction to Local Area Network (LAN) standards, and in-depth applications for Ethernet products. (1634 pages) • Size: 6.6" x 9.0" • Weight: 3.0 lbs.

Part No.	Description	Price
133348	Ethernet Data Book	$19.95

Telecommunications Data Book (1994)
COMBO, CODE/Filter and SLIC devices, software, design and applications. Includes circuits for PBX, DTMF, programmable filters and CMOS serial interfaces and more. (444 pages)
• Size: 7" x 9" • Weight: 0.9 lbs.

Part No.	Description	Price
133356	Telecomm. Data Book	$9.95

Operational Amplifiers Data Book (1995)
Operational amplifiers, buffers, voltage comparators, instrumentation amplifiers, surface mount, appendices/physical dimensions. (1343 pages)
• Size: 7" x 9" • Weight: 2.5 lbs.

Part No.	Description	Price
79071	Op Amplifier Data Book	$16.95

Easy PIC'n Data Book (1996)
Square 1 Publishing Learn all about the PIC16C54 & PIC16C84 and apply to the whole line of PIC16/17 microcontrollers. This easy-to-use guide teaches assemblers, programming, interrupts, timing/counting and I/O conversion. (152 pages)
• Size: 8.5" x 11.0" • Weight: 1.0 lb.

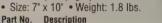| Part No.	Description	1-4	5-9
136645	Easy PIC'n Data Book	SALE	$29.95

Semiconductor Cross Reference Book (1996)
Prompt Publications An invaluable reference for finding replacement and substitution semiconductors. Over 490,000 part numbers, type numbers, and identifying numbers. (671 pages)
• Size: 10.9"L x 8.4"W • Weight: 2.7 lbs.

Part No.	Description	Price
139555	Semiconductor cross ref.	$24.95

The BIOS Companion (1997)
TRI-TAM Enterprises, Inc. Covers all BIOSs and answers all your BIOS questions. It is invaluable if you work with odd computers, especially older ones. Subjects covered include: the PC and how it works, memory and its management. Includes a CD-ROM. (300 pages)
• Size: 7" x 10" • Weight: 1.8 lbs.

Part No.	Description	Price
146561	BIOS Companion (book & CD-ROM)	$59.95

intel DATA BOOKS

486 Programmer's Reference (1995)
• 818 pages • Size: 7" x 9" • Weight: 1.7 lbs.

Part No.	Description	Price
93227	486 Programmer's Reference	$22.95

Pentium® Pro Family Developer's Manuals (1996)
Volume 1: Specifications
• 286 pages • Size: 6.8" x 9.0" • Weight: 1.0 lb.

Part No.	Description	Price
133321	Pentium® Pro Family Vol. 1	SALE $19.95

Volume 2: Programmer's Reference Manual
• 580 pages • Size: 6.8" x 9.0" • Weight: 1.9 lbs.

Part No.	Description	Price
133372	Pentium® Pro Family Vol. 2	SALE $19.95

Embedded Microcontrollers (1996)
• 700 pages • Size: 7" x 9" • Weight: 1.5 lbs.

Part No.	Description	Price
109348	Embedded Microcontrollers	$17.95

Embedded Microprocessors (1996)
• 500 pages • Size: 7" x 9" • Weight: 2.5 lbs.

Part No.	Description	Price
109356	Embedded Microprocessors	$19.95

Z80 Microprocessor Family (1995)
Zilog Publishing Includes specifications plus development support, a Superintegration Products Guide, Support Products Summary, Z80/Z180/Z280 HW/SW support and more! (393 pages)
• Size: 7" x 9" • Weight: 1.5 lbs.

Part No.	Description	1-4	5-9
104328	Z80 Microprocessor Family	$6.95	$6.25

Application Note Book (1996)
Dallas Semiconductors Contains information for the DS 1212, 1220, 1225, 1230, 1620, and other Dallas Semiconductor parts. (487 pages)
• Size: 7" x 9" • Weight: 1.1 lbs.

Part No.	Description	Price
123220	Dallas Application Notes	$19.95

NOTE: The Manufacturers of the Data Books do NOT print new books each year. We will carry the most current editions.

Data Books [Continued] 79

Simplified Design of Data Converters FTP

Newnes Publishing From data converter basics to experimentation and their design, this book offers a wealth of information on data converter integrated circuits and related components. Detailed explanation of analog-to-digital and digital-to-analog conversions. (242 pages)
• Size: 9.2"L x 6.0"W   • Weight: 0.8 lbs.

Part No.	Description	1-4	5-9
140610	Data converters book	$29.95	$26.95

The 8052 Microcontroller Idea Book (1994)

• Circuits, programs and applications featuring the 8052-Basic single chip computer (277 pages)
• Size: 7.8" x 10.5"   • Weight: 1.6 lbs.

Part No.	Description	1-4	5-9
126375	Microcontroller Idea Book	$31.95	$28.95

Basic-52 Reference Book (1995)

• Complete reference to programming 80C52-Basic and 8052AH-Basic microcontrollers (160 pages)
• Size: 8.2" x 10.6"   • Weight: 1.0 lb.
• 126295: 3.5" disk with circuit examples

Part No.	Description	1-4	5-9
126252	Basic-52 Programm. Ref.	$24.95	$22.49
126295	Basic-52 3.5" disk	11.95	10.49

Holtek CD Product Guide (1997)

Features product data sheets for Holtek's entire line of semiconductors in Adobe Acrobat PDF files.
• Size: 5.0" x 5.0"   • Weight: 0.06 lbs.

Part No.	Description	1-4	5-9
146122	Holtek Data/Product CD	$12.95	$11.49

TTL Cookbook (1995)

SAMS Publishing This is a complete look at TTL, including how it works, is interconnected, is powered, and is used in many practical applications. (335 pgs)
• Size: 5.5" x 8.5"   • Weight: 1.0 lb.

Part No.	Description	1-4	5-9
38914	TTL Cookbook	$24.95	$22.49

CMOS Cookbook (1997)

Newnes Publishing Everything you need to know to intelligently use CMOS circuits. User-oriented, stresses real-world applications, pays attention to detail, with a minimum of math and heavy theory. (512 pgs)
• Size: 5.5" x 8.5"   • Weight: 1.3 lbs.

Part No.	Description	Price
39221	CMOS Cookbook	$24.95

Pocket Reference (1996)

Sequoia Publishing Airline and lost credit card 800 numbers, area codes, airport info, money exchange rates, climate data and time zones and more. Includes tables, maps, formulas, constants & conversions and it fits in your shirt pocket! (544 pages)
• Size: 3.3" x 5.4"   • Weight: 0.3 lbs. FTP

Part No.	Description	1-4	5-9
78166	Pocket Reference	$9.95	$8.95

Electronics Pocket Reference (1994)

TAB Publishing Contains essential electronic facts needed by engineers, technicians, students and hobbyists. Filled with formulas, tables and diagrams that supply helpful, straight forward solutions to electronics problems. (496 pages)
• Size: 4.0" x 5.5"   • Weight: 0.6 lbs.

Part No.	Description	1-4	5-9
112539	Electronics Pocket Reference	$19.95	$17.95

HEARST PUBLISHING

IC Master (1997)

Enhanced with Internet access to Pinout & Package Data
Functional and numerical search guide to 125,000 commercially available integrated circuits, including over 13,000 new ICs. Alternate Source Directory lists 120,000 devices. 3 Volume set (3500 pages) • Size: 7.5" x 10.5" • Weight: 10.3 lbs.

Part No.	Description	Price
136303	1997 IC Master	SALE $169.95

IC Master CD-ROM for Windows® (1997)

Enhanced with "True" Parametric Search!
Includes pinout and package data for over 85,000 devices, hundreds of manufacturer supplied supplemental data pages, the Alternate Source Directory, the Manufacturers & Distributors Directory, plus the entire IC Master Directory of IC Manufacturers' Data Pages. • Wt.: 0.3 lbs.

Part No.	Description	Price
136291	1997 CD-ROM IC Master	$219.95

Electronic Engineers Master (1998)

This massive 4-volume purchasing resource lists all electronic products and their manufactures. Each volume contains its own product Index and Directory. It also includes manufacturers and sales offices. Cross references to other volumes are included. 4 Volume set includes 2 additional volumes of process measuring and control products from Omega. (4300 pages) • Size: 7.5" x 10.5" • Weight: 29.7 lbs.

Part No.	Description	Price
145779	EEM 98	$99.95
134279	EEM 97	Closeout 89.95

Electronic Engineers Master CD-ROM for Windows (1998)

For the first time ever, the entire EEM database is available on a single compact disk!
With the all new 1997 EEM CD-ROM for Windows®, data retrieval is fast and efficient. Users can search by product and manufacturer. They have access to 4,400 product catalog data pages from over 1,000 manufacturers. The EEM CD-ROM for Windows® includes the complete Manufacturers and Sales Offices directory that lists over 5,300 manufacturers with their local sales offices. • Weight: 0.03 lbs.

Part No.	Description	Price
145787	CD-ROM, EEM 1998	$114.95
134287	CD-ROM, EEM 1997	Closeout 104.95

IC Cross Reference Book (1996) FTP

Prompt Publications The most comprehensive replacement and substitution guide available for engineers, technicians, and anyone who works with ICs and modules. The IC Cross Reference book is from the makers of PHOTOFACT® service documentation. It includes more than 35,000 part and type number listings for the United States, Europe, and the Far East. (168 pages) • Size: 8.5" x 10.8" • Weight: 0.9 lbs.

Part No.	Description	1-4	5-9
124679	IC Cross Reference Book	$19.95	$17.95

Component Identifier & Source Book (1996)

Prompt Publications Identify components and locate their manufacturers fast! This easy to read book will help you identify components and trace their origin. Match logos to their companies. Find new manufacturers after mergers and acquisitions. Excellent for the electronics engineer, technician, or hobbyist. (353 pages) • Size: 8.4" x 10.8" • Weight: 1.9 lbs.

Part No.	Description	Price
139539	Component Identifier	$24.95

Encyclopedia of Electronic Circuits on CD-ROM

Tab/McGraw Hill Electrical engineers can turn to this new CD-ROM for an interactive, electronic version of the Encyclopedia of Electronic Circuits. It features 1,000 circuitry drawings from the 5-volume set. Fully searchable. • Weight: 0.5 lbs.

Part No.	Description	1-4	5-9
130500	Encyclopedia CD-ROM	$99.95	$89.95

Encyclopedia of Electronic Circuits

TAB Publishing:
Volume 1: (1985) contains smoke and flame detectors, voltage circuits, transmitters, audio amps, and more. (795 pgs)
• Size: 7.4" x 9.3"   • Weight: 3.0 lbs.
Volume 2: (1988) contains current and DIP meters, photoelectronic alarms, electronic locks, metal and lie detectors. (755 pgs) FTP 128881
• Size: 7.4" x 9.3"   • Weight: 2.8 lbs.
Volume 4: (1992) contains new automotive and game circuits, power supplies, microwave amp circuits, active antennas, video, computers. (730 pages)
• Size: 7.4" x 9.3"   • Weight: 2.7 lbs.
Volume 5: (1995) contains new easy circuits including: alarms and security, computers, frequency meters, gas and smoke detectors, video amps, temp sensors, etc. (730 pages)   • Size: 7.4" x 9.3"   • Weight: 2.8 lbs.

Part No.	Description	Price
126181	Encycl. of Electr. Circ. Vol. 1	$29.95
128881	Encycl. of Electr. Circ. Vol. 2	29.95
128899	Encycl. of Electr. Circ. Vol. 4	29.95
119896	Encycl. of Electr. Circ. Vol. 5	32.95

Electronic Circuit Guidebook (1997)

Volume 1: Sensors
Prompt Publications A practical approach to sensors and the analog interface. Information about typical sensors and analog sensor circuitry.
• 339 pgs.   • Size: 7.4" x 9.3"   • Wt: 1.3 lbs.

Part No.	Description	1-4	5-9
140732	Sensors, Electronic Circuit	$24.95	$22.49

Electric Circuits (1997)

SCHAUM'S OuTlines
McGraw Hill Ideal companion to your textbook providing 364 solved circuit problems. New chapters on amplifiers, and op-amps circuits, signals and waveforms, two-port networks, circuit analysis using Spice and Pspice, and fourier transforms. (468 pages)   • Size: 8.2" x 10.9"   • Weight: 1.9 lbs.

Part No.	Description	1-4	5-9
134957	Electric Circuits	$13.95	$12.49

RF Circuit Design (1995)

Newnes Publishing Complete design procedures for multiple-pole Butterworth, Chebyshev, and Bessel filters. Covers capacitors, inductors, and other components with their behavior at RF frequencies.
• 176 pages   • Size: 8.5" x 11"   • Wt: 0.9 lbs.

Part No.	Description	1-4	5-9
74093	RF Circuit Design	$24.95	$22.49

Op-Amps (1996)

Design, Applications and Troubleshooting
Butterworth-Heineman Publishing
• 488 pages   • Size: 7.0" x 10.0"   • Weight: 2.0 lbs.

Part No.	Description	Price
134914	Op-Amp Design	$49.95

Making Your Own Printed Circuit Board

No darkroom needed or special equipment. This manual shows you the steps for drilling and shaping your printed circuit board and the materials you will need. (37 pages). • Size: 8.5" x 11" • Weight.: 0.5 lbs.

Part No.	Description	1-4	5-9
141524	Making PCBs Book	$14.95	$13.49

The MIDI Manual (1991)
- 268 pages • Size: 7.3" x 9.2" • Weight: 1.1 lbs.

Part No.	Description	Price
139993	The MIDI Manual	$24.95

The In-Home VCR Mechanical Repair & Cleaning Guide (1996)
- 222 pages • Size: 8.4" x 10.9" • Weight: 1.0 lb.

Part No.	Description	Price
139512	VCR Repair & Cleaning Guide	$19.95

TechRef (1996)
Sequoia Publishing A must for the PC owner! Quick reference to ASCII codes, PC hardware, printer control codes, modems, MS-DOS commands, Windows® 3.1 and Windows® 95 keyboard shortcuts, hard drive and floppy drive specifications, and more! (832 pages) • Size: 5.0" x 7.5" • Weight: 1.0 lb.

Part No.	Description	1-4	5-9
138641	Technical Reference Book	$29.95	$26.95

Pocket PC Reference (1996)
Sequoia Publishing
- Full DOS 6.22 and earlier command reference • ASCII and Hex codes
- Hard disk specs and configuration data on over 3200 drives
- Hardware and software interrupts
- Expanded PC industry phone book w/ over 3500 main and tech support phone numbers
- PC Error codes • Cable and connector pinouts
- I/O and memory maps • Video scan frequencies
- Modem settings • 544 pages
- Size: 3.3" x 5.4" • Weight: 0.3 lbs.

Part No.	Description	1-4	5-9
76806	Pocket PC Reference	$14.95	$13.49

Pocket PC Directory (1996-1997)
Sequoia Publishing Have the tech support number you need when you need it! Over 2000 North American companies are compiled in this quick reference directory. (554 pages)
- Size: 3.2" x 5.4" • Weight: 0.3 lbs.

Part No.	Description	1-4	5-9
138659	Pocket Size PC Directory	$13.95	$12.49

Understanding Telephone Electronics (1997)
Newnes Publishing Describes how conventional telephone systems operate and how all electronics replace them. Provides an overview of state-of-the-art speech, circuits, dialing, ringing, and central office electronics. Provides an in-depth review of modems and digital technique transmissions. Also covers microcomputer and cellular phones. (367 pages)
- Size: 7.4" x 9.3" • Weight: 1.4 lbs.

Part No.	Description	Price
75504	Understanding Tele Electronics	$24.95

Robot Builder's Bonanza (1987)
TAB Publishing This fascinating guide offers you a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (326 pages) • Size: 7.3" x 9.2" • Weight: 1.2 lbs.

Part No.	Description	1-4	5-9
137171	Robot Builder's Bonanza	$17.95	$15.95

Parallel Port Complete (1996)
- See pg 111 for complete specifications
- 343 pages • Size: 7.0" x 10.0" • Weight: 1.4 lbs.

Part No.	Description	1-4	5-9
138261	Parallel Port Complete w/ SW	$39.95	$35.95

Power Supplies Project Book (1997)
Prompt Publications Guides you through the fundamentals of power supplies to design and construction of a power supply system. Includes basics of AC and DC, regulated and unregulated, linear and switching and more. (124 pages)
- Size: 6.0" x 9.0" • Weight: 0.4 lbs.

NEW

Part No.	Description	1-4	5-9
145453	Power Supply Projects	$14.95	$13.49

Controlling the World with Your PC (1994)
Hightext Publishing Connect your personal computer to the real world and make it do useful work like controlling stepping motors, monitoring fluid levels, or switching appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. Applications include: generating audio and speech tones converting input voltages to binary values, driving high power loads and DC relays, and converting DTMF to binary values. (257 pages)
- 3.5" disk is included • Size: 8.5" x 11" • Weight: 1.5 lbs.

Part No.	Description	1-4	5-9
116943	Controlling the World w/ Your PC	$29.95	$26.95

Upgrading and Repairing PC's (1996)
SAMS Publishing Ideal for individuals who want an in-depth understanding of IBM and compatible computers. Contains technical specifications, information, and guidelines for upgrading and repairing IBM and compatible 8086/88, PS/2, 286/386/486 and Pentium® systems. (1433 pages)
- Size: 7.4" x 9.0" • Weight: 4.1 lbs.

Part No.	Description	1-4	5-9
29284	Upgrading & Repairing PC's	$49.95	$44.95

Upgrading and Repairing Networks (1996)
SAMS Publishing Learn about the inner workings of your network, how to install hardware, and troubleshoot problems. Gain in-depth knowledge of major network operating systems such as NetWare® 4.1, UNIX®, and Windows NT®. Learn about backup technology, linking to mainframes, and SNMP from the experts. Special sections include coverage on adding network services and upgrade options, Internet, remote access, and virus protection with troubleshooting tips to help you identify and solve problems. (1128 pages)
- Size: 7.5" x 9.1" • Weight: 4.3 lbs.

Part No.	Description	Price
132601	Upgrading & Repairing NW	$59.95

How to Test Almost Everything Electronic (1993)
TAB Publishing Filled with easy-to-follow instructions that show you how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools and test equipment, systematic troubleshooting using flowcharts. (326 pages) • Size: 7.4" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	1-4	5-9
126199	How to Test Everything	$15.95	$14.49

Understanding Electronics (1989)
- 205 pages • Size: 7.3" x 9.3" • Weight: 0.9 lbs.

Part No.	Description	1-4	5-9
73664	Understanding Electronics	$12.95	$11.49

Electric Motors and Control Techniques
TAB Publishing Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (283 pages) • Size: 7.3" x 9.2" • Weight: 1.1 lbs.

Part No.	Description	1-4	5-9
137162	Electric Motors & Control	$22.95	$19.95

Regulated Power Supplies (1992)
TAB Publishing Discusses the circuitry and the operation of the latest solid-state regulators. Numerous circuits designed to fit almost any application. (460 pages) • Size: 7.0" x 9.0" • Weight: 1.6 lbs.

Part No.	Description	Price
114551	Regulated Power Supplies	$19.95

Build Your Own Low-Cost Signal Generator (1994)
- 276 pages • Size: 9.2" x 7.4" • Weight: 1.1 lbs.

Part No.	Description	Price
117671	Low-Cost Signal Generator	$15.95

Build Your Own Universal Computer Interface Book (1997)
McGraw-Hill A classic guide, providing complete, step-by-step instructions for assembling a UCIS and connecting it to virtually any of today's popular PC's. (411 pgs.) • 3.5" diskette • Size: 7.3" x 9.3" • Wt.: 2.0 lbs.

Part No.	Description	1-4	5-9
143829	Univ. Interface Book w/ disk	$34.95	$31.49

Build Your Own Pentium Pro® (1997)
McGraw-Hill Clear, step-by-step guide; anybody who knows which end of the screwdriver to grip can build their own Pentium Pro® processor PC. (348 pages)
- Size: 7.5" x 9.3" • Weight: 1.5 lbs.

Part No.	Description	1-4	5-9
140628	Build Your Own Pentium Pro®	$21.95	$19.95

Troubleshooting and Repairing Computer Printers (1996)
- 472 pages • Size: 7.3" x 9.2" • Weight: 1.8 lbs.

Part No.	Description	1-4	5-9
133209	Computer printers	$24.95	$22.49

Troubleshooting and Repairing Audio Equipment (1996)
- 528 pages • Size: 7.3" x 9.2" • Weight: 2.0 lbs.

Part No.	Description	Price
133217	Audio Equipment	**SALE** $19.95

Troubleshooting and Repairing Compact Disc Players (1996)
Remove and replace defective laser heads; troubleshoot and replace low-voltage power supply circuits; service signal circuits with a scope, and much more. (489 pgs) • Size: 7.4" x 9.3" • Weight: 1.9 lbs.

Part No.	Description	Price
114542	Troubleshooting CD Players	$24.95

Electronic Alarm and Security Systems (1995)
TAB Publishing Information on basic alarm systems, sensors, design, installation, maintenance, computer controlled systems, troubleshooting and more!
- 256 pages • Size: 7.5" x 9.3" • Weight: 1.0 lb.

Part No.	Description	Price
126201	Electr. Alarm & Security Syst.	$24.95

Troubleshooting & Repair Guide to TV (1996)
Prompt Publications Learn how to troubleshoot: PIP (picture-in-picture), microprocessor tuner control circuits, switch-mode power supply circuits, audio/video switching circuits, troubleshoot stereo and SAP audio circuits. (238 pages)
- Size: 8.4" x 10.9" • Weight: 1.3 lbs.

Part No.	Description	Price
139521	Troubleshooting TV	**SALE** $26.95

VCR Troubleshooting & Repair (1995)
- 286 pages • Size: 7.4" x 9.0" • Weight: 1.2 lbs.

Part No.	Description	Price
74077	VCR Troubleshooting & Repair	$19.95

Troubleshooting Analog Circuits (1993)
- 217 pages • Size: 7" x 10" • Weight: 1.1 lbs.

Part No.	Description	Price
133823	Analog troubleshooting	$29.95

Digital Satellite Service – Installation and Maintenance (1996)
- 283 pages • Size: 7.5" x 9.3" • Weight: 0.2 lbs.

Part No.	Description	Price
133196	Digital Satellite Service	**SALE** $19.95

Video Scrambling and Descrambling for Satellite and Cable TV (1987)
- 246 pages • Size: 8.5" x 11.0" • Weight: 1.3 lbs.

Part No.	Description	Price
136442	Video Scram & Descrambling	$24.95

New Enclosures on next page!

Prototype Builder Boards, Enclosures and Hardware

Call for large OEM pricing.

See page 64 for Wall Transformer Enclosures

The Jameco Prototype builder boards are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy duty instrument cases. These pre-cut boards will allow the builder an immediate start on prototyping circuits. Each board has 2 or 4 mounting holes compatible with P/N 106551, PC board mounting hardware.

Board description: laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper clad and solder mask one side. Drilled holes .040" diameter on .080" square pad. Pads spaced on .10" x .10" grid. PC board mounting hardware listed bottom right.

119618 Rubber Feet (4)
106551 Hardware Set (20) (used with all boards)
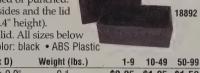
See page 56 for hardware and page 36 for knobs
*All boards sold individually.

Jameco ABS Speedy Boxes

Will not crack or split when drilled or punched. PCB mounting slots on all four sides and the lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS Plastic

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1-9	10-49	50-99
18921	H2855★	3.1" x 2.0" x 0.9"	0.1	$2.25	$1.95	$1.59
18913	H2853	4.9" x 2.5" x 1.5"	0.2	2.49	2.25	1.79
18892	H2851	6.0" x 3.5" x 1.9"	0.4	2.95	2.69	2.39
18905	H2852★	7.5" x 4.3" x 2.3"	0.5	3.49	2.95	2.49

Printed Circuit Boards for ABS Speedy Boxes
• Peripheral ground/power busses (except P/N 105099)
• Plated one side holes • Weight: 0.1 lbs.
Prototype Ready! 105099

Part No.	Product No.	Size (L x W)	No. of Holes	1-9	10-49	50-99
105099	2855PCB★	2.7" x 1.6"	288	$2.75	$2.25	$1.95
105128	2853PCB	4.4" x 2.0"	671	4.95	4.49	3.95
105152	2851PCB	5.5" x 3.1	1450	5.95	4.95	4.49
105161	2852PCB★	7.0" x 3.6"	2225	7.95	6.95	5.95

Jameco Die Cast Aluminum Enclosures

High quality die cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for circuits involving heat (up to 600°C). Complete with screws.

11973

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1-9	10-49	50-99
11957	B5002	3.9" x 2.0" x 1.0"	0.2	$3.75	$3.25	$2.79
11965	B5004	4.7" x 2.4" x 1.6"	0.4	4.95	4.49	3.95
11973	B5006	7.5" x 4.3" x 2.4"	1.2	9.95	8.95	7.95

Printed Circuit Boards for Die Cast Aluminum Enclosures
• Peripheral ground/power busses
• Plated one side holes • Weight: 0.1 lbs.
Custom Fit! 105101

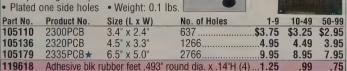| Part No.	Product No.	Size (L x W)	No. of Holes	1-9	10-49	50-99
105101	5002PCB	3.5" x 1.5"	365	$3.49	$2.95	$2.49
105128	5004PCB	4.4" x 2.0"	671	4.95	4.49	3.95
105161	5006PCB★	7.0" x 3.6"	2225	7.95	6.95	5.95

Jameco Aluminum Boxes

11893

Ideal boxes for those weekend projects that get left lying around! Put them in an economical aluminum box. The boxes come in two pieces which slide together.

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1-9	10-49	50-99
11869	B2300	4.0" x 2.0" x 2.8"	0.2	$3.49	$2.95	$2.25
11885	B2320	5.0" x 4.0" x 3.0"	0.4	4.95	4.49	3.95
11893	B2335	7.0" x 6.2" x 4.6"	0.8	6.95	6.49	5.95
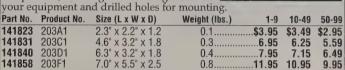
Printed Circuit Boards for Aluminum Boxes
• Peripheral ground/power busses
• Plated one side holes • Weight: 0.1 lbs.
119618 105136

Part No.	Product No.	Size (L x W)	No. of Holes	1-9	10-49	50-99
105110	2300PCB	3.4" x 2.4"	637	$3.75	$3.25	$2.95
105136	2320PCB	4.5" x 3.3"	1266	4.95	4.49	3.95
105179	2335PCB★	6.5" x 5.0"	2766	9.95	8.95	7.95
119618	Adhesive blk rubber feet .493" round dia. x .14"H (4)			1.25	.99	.75

Jameco ABS Cases w/ Clear Top

141840

Case is made of a gray ABS plastic body with a clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment and drilled holes for mounting.

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1-9	10-49	50-99
141823	203A1	2.3" x 2.2" x 1.2	0.1	$3.95	$3.49	$2.95
141831	203C1	4.6" x 3.2" x 1.8	0.3	6.95	6.25	5.59
141840	203D1	6.3" x 3.2" x 1.8	0.4	7.95	7.15	6.49
141858	203F1	7.0" x 5.5" x 2.5	0.8	11.95	10.95	9.95

Jameco Metal Cabinets

11914 11922 11949

High quality metal cabinets are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.
• Mounting screws and rubber feet included

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	1-9	10-49	50-99
11914	B2741	4.0" x 3.3" x 2.2"	0.4	$4.49	$3.95	$3.59
11922	B2743	5.9" x 5.3" x 3.0"	0.8	5.95	5.49	4.49
11949	B2744	7.3" x 6.3" x 2.8"	1.1	6.95	6.49	5.95

Printed Circuit Boards for Metal Cabinets
• Peripheral ground/power busses • Plated one side holes • Weight: 0.1 lbs.

Part No.	Product No.	Size (L x W)	No. of Holes	1-9	10-49	50-99
105110	2741PCB	3.4" x 2.4"	637	$3.75	$3.25	$2.95
105144	2743PCB★	4.7" x 4.5"	1868	7.95	6.95	5.95
105179	2744PCB★	6.5" x 5.0"	2766	9.95	8.95	7.95

Jameco Heavy Duty Instrument Cases

18868

Both cases split apart for ease of working. Four plastic feet molded on unit. Various PCB mounting positions; front and rear panels are molded plastic. 18876 includes ventilation and speaker sound slots.

Part No.	Product No.	Size (L x W x D)	Weight (lbs.)	Color	1-9	10-49	50-99
18868	H2505★	7.9" x 6.3" x 2.5"	0.8	gray	$6.49	$5.95	$5.49
18876	H2507★	10.0" x 7.5" x 3.1"	1.4	gray	7.95	6.95	6.25

Printed Circuit Boards for Heavy Duty Instrument Cases
• Peripheral ground/power busses • Plated one side holes

Part No.	Product No.	Size (L x W)	Wt. (lbs.)	No. of Holes	1-9	10-49	50-99
105179	2505PCB★	6.5" x 5.0"	0.1	2766	$9.95	$8.95	$7.95
105187	2507PCB★	8.8" x 6.1"	0.2	4771	13.95	12.49	11.25

Jameco Instrument Cases with 9-volt Battery Compartment

118877

• Molded black plastic with two metal face plates
• Separate 9 volt battery compartment
• Printed circuit boards (below)
P/N 105099 – sloping panel section P/N 118885 – horizontal panel section

Part No.	Height	Size (L x W)	Weight (lbs.)	1-9	10-49	50-99
118869	2.2"(H2) x 1.2"(H1)	5.7" x 3.4"	0.3	$12.95	$11.49	$9.95
118877	2.9"(H2) x 1.9"(H1)	5.7" x 3.4"	0.3	14.95	13.49	12.95

Printed Circuit Boards for Instrument Cases
• Weight: 0.1 lbs.
106551 105099 118885

Part No.	Product No.	Description	Size (L x W)	1-9	10-49	50-99
105099	2107PCB2★	For sloping panel	2.7" x 1.6"	$2.75	$2.25	$1.95
118885	2107PCB1	For horizontal panel	3.4" x 2.9"	5.95	5.49	4.95
106551		PC board mounting hardware (set of 4) 20 pcs.		1.19	.99	.79

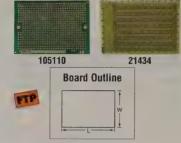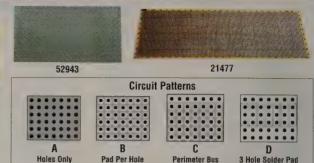## VECTOR ELECTRONIC COMPANY · JAMECO General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and cost effective alternatives to custom designs.

- 0.16" board thickness
- 0.1" hole spacing
- 0.04" hole diameter
- 0.08" pad size
- Plated through pads are double-sided
- All boards use terminals T44, T49, and T421
- See opposite page for PCB mounting hardware
- Weight: 0.5 lbs.

105110 21434 52943 21477

Board Outline

Circuit Patterns

A	B	C	D
Holes Only	Pad Per Hole	Perimeter Bus	3 Hole Solder Pad

Part Number	Product Number	Material/ Description	Size (inches) (W" x L")	Fits Case(s) (see page 81)	Circuit Pattern	Holes Pads	Number of Holes	Power/Ground Busses	Connector I/O or Edge	Mounting Holes	Pricing 1-9	Pricing 10-49
105101	5002PCB	Epoxy glass PCB	1.50 x 3.50	11957	C	single-sided	365	4	none	2	$3.49	$2.95
105099	2855PCB★	Epoxy glass PCB	1.60 x 2.70	18921	C	single-sided	288	none	none	2	2.75	2.25
105128	2853PCB	Epoxy glass PCB	2.00 x 4.40	18913, 11965	C	single-sided	671	4	none	4	4.95	4.49
105110	2300PCB	Epoxy glass PCB	2.40 x 3.40	11869, 11914	C	single-sided	637	4	none	2	3.75	3.25
105152	2851PCB	Epoxy glass PCB	3.10 x 5.50	18892	C	single-sided	1450	7	none	4	5.95	4.95
105136	2320PCB	Epoxy glass PCB	3.30 x 4.50	11885	C	single-sided	1266	4	none	4	4.95	4.49
118885	2107PCB1	Epoxy glass PCB	3.40 x 2.90	118869, 118877	C	single-sided	820	3	none	4	5.95	5.49
105161	2852PCB★	Epoxy glass PCB	3.60 x 7.00	18905, 11973	C	single-sided	2225	4	none	4	7.95	6.95
28177	PCB1	Epoxy glass PCB	4.13 x 2.44	18913	B	plated through	673	none	none	4	4.95	4.49
105144	2743PCB	Epoxy glass PCB	4.50 x 4.70	11922	C	single-sided	1868	6	none	4	7.95	6.95
21434	JE401(8001)★	Epoxy glass PCB	4.50 x 6.50	18868	B/D	single-sided	2360	2	none	none	14.95	13.49
21451	JE405(8003)★	Epoxy glass PCB	4.50 x 6.50	18868	B	single-sided	2360	1	none	none	17.95	14.95
43140	64P44XXXP	Phenolic PCB	4.50 x 6.50	18868	A	drilled only	2816	none	none	none	5.95	5.49
52943	84P44WE	Phenolic PCB	4.50 x 8.50	18876	A	drilled only	3696	none	none	none	6.49	5.95
37604	169P44WE	Epoxy glass PCB	4.50 x 17.0	N/A	A	drilled only	7480	none	none	none	10.95	9.95
37612	169P44XXXP	Phenolic PCB	4.50 x 17.0	N/A	A	drilled only	7480	none	none	none	7.95	7.49
105179	2505PCB★	Epoxy glass PCB	5.00 x 6.50	11893, 18868, 11949	C	single-sided	2766	7	none	8	9.95	8.95
28193	PCB3	Epoxy glass PCB	5.00 x 8.00	18876	B	plated through	3517	4	mounting area-I/O	4	SALE	19.95
21477	JE407(8006)★	Epoxy glass PCB	5.00 x 13.25	N/A	B	plated through	6500	none	none	8	29.95	26.95
105187	2507PCB★	Epoxy glass PCB	6.10 x 8.80	18876	C	single-sided	4771	7	none	8	13.95	12.49
37621	169P84WE	Epoxy glass PCB	8.50 x 17.0	N/A	A	drilled only	14280	none	none	none	19.95	16.95

VECTOR ELECTRONIC COMPANY · JAMECO Printed Circuit Prototyping Boards

Printed circuit prototyping boards for virtually any application – including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precision standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

- Weight: 0.6 lbs.

69577 21531

Part Number	Product Number	Description	Size (Inches) W x L	Terminal types T44	Terminal types T49	Terminal types T421	Bus Interface	Edge Contacts	I/O Connector	Holes Pads/No Pads	Power/ Ground Bus	Pricing 1-4	Pricing 5-9
69577	CV16	PC/XT/AT 8/16-bit w/ basic circuit built in	4.5 x 13.5	yes	yes	yes	yes	gold	—	—	—	$79.95	$69.95
21531	JE417★	PC/XT 8-bit	4.2 x 6.5	yes	yes	yes	no	gold	D-sub 9 to 37-pin	plated, with pads	yes	17.95	16.49
28206	PCB4	PC/XT/AT 16-bit	4.25 x 13.13	yes	yes	yes	no	gold	D-sub 9 to 25-pin	double sided pads	2 separate busses, PWR and ground	27.95	24.95

- See opposite page for circuit board mounting hardware
- See page 56 for aluminum round and hex spacers

SESCOM Aluminum Enclosures NEW

Make your own affordable test fixtures

- Assemble with a #1 Phillips screwdriver
- Easy to drill or punch
- Great for test fixtures
- Pre-punched panels available

145189 Shown w/ side panels (not included)

Part No.	Description	Dimensions (W x H x D)	1-9	10-49	50-99
145171	Aluminum enclosures	2.0" x 2.0" 1.0"	$3.95	$3.49	$2.95
145189	Aluminum enclosures	2.0" x 4.0" 1.0"	4.95	4.49	3.95
145197	Aluminum enclosures	2.0" x 6.0" 1.0"	5.95	5.49	4.95

Side Panels
- For use w/ P/N 145171, 145189, 145797 NEW

Part No.	Description	1-9	10-49	50-99
145200	3/8" "D" BNC side panel (2 pcs.)	$.79	$.69	$.59
145218	DE9 side panel (2 pcs.)	.79	.69	.59
145226	DB25 side panel (2 pcs.)	.79	.69	.59

VECTOR ELECTRONIC COMPANY Wire Wrap and Push-In Terminals (for .042" Diameter Holes)

Specifications: • Material: copper alloy • Prebagged 100 pcs.

34155 Miniwrap Wiring Terminals:
- Two prong with square tail for wire wrapping
- Overall length: .69" • Post size: .025"Sq.

34163 Klipwrap Wiring Terminals
- Three prong with square tail for wire wrapping
- Overall length: .81" • Post size: .025"Sq.

34147 Push-In Micro-Klip Terminals
- .025"Dia.

34155 34163 34147

Part Number	Product Number	Height Above .062" Board	Length Below .062" Board	Weight (lbs.)	100 pc. units 1-9	100 pc. units 10-24
34155	T44	.065	.530	.02	$4.95	$4.49
34163	T49	.200	.560	.03	9.95	8.95
34147	T421	—	—	.01	3.95	3.59

Protobuilder Packages
20 and 24-Pin Wide

NEW
Other options available!

The Accutek family of AccuZIP adapter modules is designed to convert any digital IC in SOIC package to side-mounted ZIP modules. These modules can save space on thru-hole boards or replace unavailable monolithic ZIP devices.

145437

FTP

- Unique low-profile design accepts 20 or 24-pin ICs in wide (.300") SOIC packages
- Motherboard circuit density dramatically increased by up to 65% compared to conventional DIP or SOIC
- Ideal for use with VMEbus, STDbus, and Multibus II board designs • Weight: .003 lbs.

Part No.	Description	1-9	10-24
145437	20-pin ZIP wide (1.0"W x 0.7"H)	$5.95	$5.49
145445	24-pin ZIP wide (1.2"W x 0.7"H)	5.95	5.49

8031 Embedded Applications Proto PC Board

This prototyping board constitutes a complete system for developing embedded control applications. Allows programming in assembly language. Efficient software development and rapid hardware prototyping are combined in a single integrated development environment.

FTP

- 32KB of SRAM • 8031 CPU
- 32KB of monitor EPROM
- 14 screw-type terminal blocks connected to general purpose digital input/output ports
- 40-pin header for all system signals
- Two 23-pin headers for demultiplexed data, address, control, and input/output signals
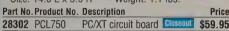- Size: 7.0"L x 4.0"W • Weight: 1.4 lbs.
- One-year warranty

Part No.	Description	Price
119546	Prototype PC board	$99.95

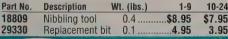## ADVANTECH PC/XT 8-Bit Prototyping Card with Basic Circuit Built In

- Terminal types: T44, T49, T421
- I/O address decoder and data/address line buffer
- Jumper selectable memory block sizes
- Bus interface • Gold edge contacts
- D-sub 37-pin female I/O connector
- Size: 14.0"L x 5.0"H • Weight: 1.1 lbs.

FTP

Part No.	Product No.	Description		Price
28302	PCL750	PC/XT circuit board	Closeout	$59.95

JAMECO Nibbling Tool

- Perfect for cutting and trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on chassis, printed circuit boards and prototype models
- Minimum .375" hole required • Size: 7.8"L

18809

Part No.	Description	Wt. (lbs.)	1-9	10-24
18809	Nibbling tool	0.4	$8.95	$7.95
29330	Replacement bit	0.1	4.95	3.95

16-Bit Active Slot PC Extension Interface

Gives you three additional expansion slots with the advantages that external slots provide including the protection and convenience of a test environment.

FTP

- PC/XT/AT compatibles
- Supports following cards: MONO/EGA/VGA/FDC/HDC, game, most I/O
- Control card installs inside your case with four external slots on the outside
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Compatible with 8 or 16-bit cards
- Can be powered off the PC or externally using 6-pin connection (P/N 78318 & P/N 78326, pg 45)
- Replacement fuse: 250V-2A (P/N 103915, pg 60)
- Can insert and remove cards while power on
- Power indicator LEDs for each voltage
- Size: 9.5"L x 6.8"W x 1.0"H • Weight: 5.5 lbs.
- One-year warranty

Part No.	Description	Price
131238	PC slot extender unit	$279.95

JAMECO PLCC Prototype Adapters

PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with .25" long leads.

73550

FTP

- PCB construction
- Silk screen numbers identify pin numbers in groups of 5 and 10 • Tin plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover
- Gold plated round pins • Weight: 0.1 lbs.

Part Number	Product Number	Pins	Size (L x W)	1-9	10-24
73533	PL28	28-pin	1.4" x 1.1"	$7.95	$6.49
73541	PL44	44-pin	2.3" x 1.6"	9.95	8.95
73550	PL68	68-pin	3.4" x 1.6"	17.95	13.95
73568	PL84	84-pin	4.3" x 1.9"	21.95	18.95

JAMECO 8/16-Bit Solderless Plug-In Breadboard

FTP

- Plugs into an PC/XT/AT or compatible
- 62 data I/O lines and a DB25 connector for interfacing to peripherals
- External DB25 female connector
- 24 14-pin IC capacity • 2,352 contact points
- Clearly labeled bus lines • Durable construction
- Size: 13.8"L x 5.0"W • Weight: 1.0 lb.
- One-year warranty

Easy PC/XT/AT Prototyping!

Part Number	Product Number	Description	1-4	5-9
81672	JE604	8/16-bit breadboard	$59.95	$53.95

Bug Boards **NEW**

Used for testing IC chips without soldering onto a printed circuit board. Direct pin-out connections indicated on board and screw down terminals for easy wire connections. Add a solder tail or ZIF socket for plug in/out functionality!

144995

- Size: P/N 144987: 1.6"W x 1.0"H x .06"thick
  P/N 144995: 2.9"W x 2.6"H x .06"thick
  P/N 145007: 3.2"W x 2.6"H x .06"thick

Part No.	Description	Wt. (lbs.)	1-9	10-24
144987	8-pin DIP board	.03	$9.95	$8.95
144995	14-pin DIP board	.05	10.95	9.95
145007	16-pin DIP board	.05	11.95	10.49

ams PCI Bus Prototype Board

- All plated through holes
- 0.1" hole spacing
- 50 Mil power and ground grinds
- Provision for wire wrap and bypass caps
- Impedance matched to bus specifications
- Allows mounting access to every signal on the bus
- Easy access to every signal on the bus
- Size: 12.4"L x 5.0"W • Weight: 0.6 lbs.

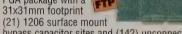| Part No.	Description	1-4	5-9
141372	PCI prototype bus brd **SALE**		$69.95

ams PCI Bus Extender Card

- PCI Bus
- Extends life of motherboard connectors
- Gold plated finger for long life
- Access to all components
- Size: 5.9"L x 5.4"W
- Weight: 0.4 lbs.

Part No.	Description	1-4	5-9
141381	PCI bus extender card	$79.95	$71.95

BestProto Prototyping Boards
AT/ISA Protoboard

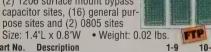- Can accommodate a PGA package with a 31x31mm footprint
- (21) 1206 surface mount bypass capacitor sites and (142) unconnected sites
- Includes signal definition chart
- Size: 8.2"L x 4.2"W • Weight: 0.2 lbs.

FTP

Low noise power and ground planes

Part No.	Description	1-4	5-9
136469	AT/ISA protoboard	$29.95	$26.95

Stamp Size Prototype Builder (3 pcs.)

- For single chip circuits
- (2) 1206 surface mount bypass capacitor sites, (16) general purpose sites and (2) 0805 sites
- Size: 1.4"L x 0.8"W • Weight: 0.02 lbs.

FTP

Part No.	Description	1-9	10-24
136451	Stamp size boards (3)	$6.95	$6.25

PCB Standoff Mounting Hardware

28337 129251 143677

- Snap "on" • Nylon • Weight: .004 lbs.
- 28337: 1.2"L x 0.6"W for 0.2" holes
- 129251: 0.9"L x 0.4"Dia. for 0.2"/0.3" holes
- 143677: 1.2"L x 0.6"W for .156"/.187" holes

Part No.	Product No.	1-99	100-999	1000
28337	PCST	$.19	$.15	$.09
129251	PCST2	.15	.12	.07
143677	30117-N	.15	.12	.09

Jameco Digital-Analog Lab

Solderless Breadboard
2712 interconnected nickel plated tie points, fitting all DIP sizes and all components with solid leads AWG #22-30 (0.3-0.8mm)

DC Power Supplies
Variable DC output:	Output voltage 0 to +15V and 0 to -15V, 500mA
Fixed DC output:	+5VDC, 1A; -5VDC, 300mA

Function Generator
Frequency range: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
Sine wave output:	0–8 Vpp variable
Triangle wave output:	0–6 Vpp variable
Square wave output:	0–8 Vpp variable

Other features:
- (2) variable resistors: VR1=1KΩ, VR2=100KΩ
- (8) data switches • 2¹/₂" dia. 8Ω/.25W speaker
- (2) pulse switches (2 sets of output: A, A, B, B)
- (2) banana sockets, (2) BNC jacks
- 2-digits of segment LED display
- (8) red LEDs with seperate input terminals
- Includes power cord and manual • One-year warranty
- Size: 12.8"W x 9.8"D x 3.7"H • Weight: 8.5 lbs.

Part No.	Description	1-4	5-9
136266	Digital-analog lab	$329.95	$299.95

Jameco AC/DC Power Supply for Breadboards

With built-in short-proof regulated power supplies.
- Indicator lamps and power fuses
- Just plug-in and start to use
- Compact and lightweight
- For both digital and analog circuits
- Compatible w/ test leads 77841 (pg 95)
- Color: beige • One-year warranty
- Size: 7.4"W x 5.5"D x 2.6"H • Weight: 5.5 lbs.

Output Specifications:
+5VDC, 1A; -5V, 300mA fixed
0 to +15VDC, 500mA variable
0 to -15VDC, 300mA variable
12-6-0-6-12 tapped VAC, 300mA fixed

Part No.	Product No.	Description	1-4	5-9
77681	JE820	Power supply	$119.95	$107.95

PC Hardware Projects V2 (1997)

Prompt Publications If you have always wanted to work with stepper motors and need a setup to drill your own PC boards quickly and accurately, this is the book that will help you. (222 pages)
- Size: 7.8" x 9.3" • Weight: 1.0 lb.

Part No.	Description	1-4	5-9
143280	PC Hardware Projects V2	$24.95	$22.49

Build Your Own Home Lab Book (1997)

Prompt Publications This book shows you how to assemble an efficient and inexpensive lab. Includes many projects for creating your own instruments, such as a multichannel oscilloscope switch and a 100 minute timer/stopwatch. (314 pages)
- Size: 7.5" x 9.3" • Weight: 1.3 lbs.

Part No.	Description	1-4	5-9
145470	Build Your Own Home Lab	$24.95	$22.49

Jameco Powered Project Board
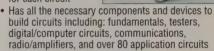
- DC power: +5V @ 1A, variable power 0-15V @ 500mA (screw terminals)
- Input power: 120VAC @ 60Hz
- Back panel has ground terminal
- Outputs are short circuit protected
- Model EP-3 edge plate for non-DIP size components
- Solderless breadboard with 2420 tie points
- Replacement fuse: P/N 103907 (pg 60)
- Power switch with light • Includes power cord
- Breadboard size: 7.4"L x 6.8"W
- Box size: 9.8"L x 8.0"W x 2.6"H
- Weight: 6.8 lbs. • One-year warranty

CE

Part No.	Description	1-4	5-9
136258	Powered breadboard	$99.95	$89.95

250-in-1 Electronics Project Board

Build 250 different circuits and learn how basic components can be used in so many different applications!

- Includes a manual with a schematic, description and wiring sequence for each circuit
- Has all the necessary components and devices to build circuits including: fundamentals, testers, digital/computer circuits, communications, radio/amplifiers, and over 80 application circuits
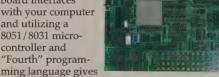- Requires two "AA" batteries and one 9-volt battery (not included)
- Requires short and long length wire – see pg 51 and 85 for wire options • Weight: 4.2 lbs.
- Fold out case size: 12.5"L x 9.8"W x 2.4"H

Part No.	Description	1-4	5-9
136127	250-in-1 project board	$99.95	$89.95

CT-100 Microprocessor Lab Board and Manual **FTP**

The CT-100 lab board interfaces with your computer and utilizing a 8051 / 8031 microcontroller and "Fourth" programming language gives the student or professional engineer an excellent tool to learn and design in both hardware and software microprocessor applications. Perfect aid for teaching the equivalent of a one-semester microcontroller course.

- Clearly marked regions group specific hardware for experiments • Experimental circuits on board
- 8051 signals routed to an ISA expansion slot for PC prototyping • Requires 9VDC @ 2A power adapter or a regulated 5VDC @ 3A power supply (not included – recommend P/N 123246 – pg 65)
- Includes interface card with flat ribbon cable, connecting cables, 6 standoffs, complete user's manual with microcontroller spec sheets and 3.5" software disk
- Board size: 12.3"L x 8.6"W • Weight: 3.3 lbs.
- One-year warranty

Part No.	Description		Price
136101	PC interface lab board	**SALE**	$299.95

Jameco Digital Lab

Solderless Breadboard
1580 interconnected nickel plated tie points, fitting all DIP sizes and all components with solid leads AWG #22-30 (0.3-0.8mm). Horizontal layout.

DC Power Supplies
All DC power supplies equipped with short circuit protection
Variable DC power:	Output voltage 0 to +15V and 0 to -15V
+5VDC power supply:	Output voltage 5V ± 0.25V (no load to full load) Maximum output current 1 amp
-5VDC power supply:	Output voltage -5V ± 0.25V (no load to full load) Maximum output current 0.1 amp

Two 7-Segment Displays
Common cathode operation
Function Generator (5 ranges)
Frequency range: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
Sine wave output: 0–8 Vp-p variable
Triangle wave output: 6Vp-p fixed
Square wave output: ±5V fixed
Digital Voltmeter (DVM) 4 ranges
3 1/2-digits LED display
0–199.9V, 0–19.99V full scale
0–1.999V, 0–199.9mV full scale

Our most popular digital lab!

- Size: 10.6"W x 13.3"D x 5.0"H (back panel)
- One-year warranty • Weight: 8.1 lbs.

Part No.	Product No.	Description	Price
75838	JE800	Digital lab	$249.95

Jameco Wideband 100 MHZ Prototype Board

This 2nd generation solderless board is ideal for high speed low noise analog and mixed signal circuits. Useful for testing of instrumentation, signal conditioning, and acquisition circuits.
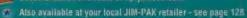
Shown with cables – not included

- Low inductance grounding system and power line decoupling circuits for operation over 100MHz
- Four dedicated ground buses and four uncommitted bus lines
- Eight BNCs for signal and power connections
- Side rails for added connectors and power devices, switches
- Working area: 6.5" x 4.3" with 1660 holes (0.1" spacing)
- Includes cover • Size: 7.4"L x 5.1"W x 1.5"H
- Weight: 1.2 lbs. • One-year warranty

Part No.	Description		Price
132177	Wideband protoboard	**SALE**	$59.95

20757   20773   20790   20811   136901

94457   20600   20669   20722
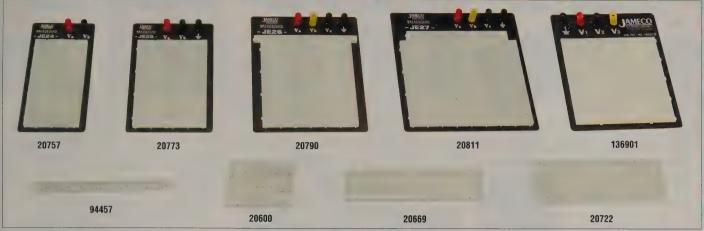
Jameco's long-lasting breadboards feature screen printed color coordinates and are suitable for many kinds of prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco AC/DC breadboard power supply for both digital and analog circuit requirements. (See page 84)

Attention Educators! Buy jumper wire in bulk and SAVE! (see Hook-up Wire on page 51)

- Accepts most electronic components including integrated circuits and transistors for digital and/or analog circuitry
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- 0.1" hole spacing • One-year warranty
- WBU5 and JE series do not interconnect

JE Series Key Features:
- Low static, plastic body – CMOS safe
- Nickel plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (see 19289 & 20079 – below)
- Use to breadboard and debug circuit designs
- Some models feature heavy-duty aluminum backings

WBU5 Series Key Features:
- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins inserting across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent tightly together

Part Number	Product Number	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L x W (In.)	Baseplate Size L x W (In.)	Weight (lbs.)	Pricing 1-9	10-49	50-99	100+
94457	JE19	0	2	100	0	6.5 x 0.4	—	0.04	$2.49	$2.25	$1.95	$1.49
20600	JE21★	1	2	400	0	3.3 x 2.1	—	0.13	4.95	4.49	3.95	3.49
136901	WBU504	2	3	1600	4	5.5 x 2.3	7.4 x 6.3	0.90	21.95	19.95	17.95	15.95
20669	JE22★	1	0	630	0	6.5 x 1.4	—	0.20	5.49	4.95	4.49	3.95
20722	JE23★	1	2	830	0	6.5 x 2.1	—	0.30	7.95	6.95	6.25	5.59
20757	JE24★	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	11.95	10.95	9.95	8.95
20773	JE25★	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	17.95	15.95	13.95	12.49
20790	JE26★	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	22.95	20.49	18.49	16.95
20811	JE27★	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	30.95	27.95	25.95	23.95

Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- For breadboard applications • Weight: 0.04 lbs.
- Asst. (10/pkg.): Yellow (2) White (2) Red (2) Black (2) Blue (2)

126341

	mm	inches
	50mm	1.97"
	100mm	3.94"
	200mm	7.87"

Part Number	Product Number	Length	Qty. /Pk.	Color	1-9	10-24
126359	JW50	50mm	10	Asst.	$3.95	$3.59
126341	JW100	100mm	10	Asst.	4.49	3.95
126324	JW200	200mm	10	Asst.	4.95	4.49

Double Binding Posts Dual Banana
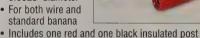
- Red/Black design
- Screw-mount
- 0.72" between posts
- Size: 1.6"L x 1.4"W • Weight: 0.04 lbs.

Part No.	Description	1-9	10-99	100+
125196	Screw mount bind post.	$2.95	$2.59	$1.95

1.75" Screw Solder Binding Posts (2)

- 0.16" hole for banana test leads
- Chassis mounting
- Solder post: 0.0625" diameter
- For both wire and standard banana
- Includes one red and one black insulated post
- Size: 1.8"L x 0.5"Dia. • Weight: 0.04 lbs.

Part No.	Description	1-9	10-99	100+
77690	Binding posts (2)	$1.49	$1.25	$.99

1" Screw Type Binding Posts (2)

- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut
- Solder tab hole: 0.06" diameter
- Requires 0.32" mounting hole
- For both wire and standard banana
- Includes one red and one black insulated post
- Size: 1.0"L x 0.5"Dia. • Weight: 0.04 lbs.

Part No.	Description	1-9	10-99	100+
71239	Binding posts (2)	$1.19	$.99	$.79

Jameco 350 pc. Wire Jumper Kit

19289

- 25 each of lengths 0.1 through 5.0 (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/pre-formed 22 AWG solid wire jumpers

19289: 350 pieces wire jumper kit
- Handy, durable, clear plastic case
- Weight: 0.5 lbs.

20079: 350 pieces refill for 19289
- Case not included • Weight: 0.2 lbs.

Part No.	Description	1-9	10-49	50-99	100+
19289★	Wire jumper kit	$9.95	$8.95	$7.95	$6.95
20079★	Refill for 19289	7.95	6.95	5.95	5.35

See pages 47, 48 & 50 for additional crimping tools!

Jameco Vernier Calipers
Metric or Inches   116134
- For accurate measurements every time • Measures outside, inside and depth
- Easy to read dial gauge
- Materials: metal
- Length: 6" (150mm)
- Includes fitted plastic storage case
- Color: silver • Weight: 0.7 lbs.

Part No.	Description (minimum reading)		1-4	5-9
116134	Metal metric	(.02 mm).... **SALE**	$19.95	
116126	Metal inches	(.001 inch)...... 24.95	22.49	

Jameco Digital Display Calipers
Metric and Inches
- Hardened stainless steel
- Display: inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm(0.0005")
- Interface: serial output RS232C
- Instructions for making internal, external, depth and step measurements
- Auto-off after 5 minutes • One-year warranty
- Includes fitted case and 1.5V silver oxide battery (Replacement battery – P/N 140783, pg 64)
- Calipers measure to 6 inches/150mm • Weight: 0.8 lbs.

Part No.	Description	1-4	5-9
127482	Digital display calipers .... **SALE**	$59.95	

Resistor Lead Forming Tools
                106884
- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors • Weight: 0.05 lbs.
106884: 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"; 5.4"L x 1.5"W
133938: 1W: 0.8"-1.4"; 2W: 0.9"-1.9"; 5.4"L x 1.8"W

Part No.	Product No.	Description	1-9	10-24
106884	RLF801	Lead tool, 1/4-1/2W	$2.95	$2.49
133938	RLF802	Lead tool, 1-2W	3.49	2.95

Strip-Wrap-Unwrap Tools
34577/34585:
- Strips, wraps, unwraps
- Tool tip made of tempered steel   34577
- Use with 30 AWG wire on .025" square posts
- No solder necessary (see pg 51 for wire)
- Spring steel cutter • 4.5" long • Weight: 0.04 lbs.
34585: • Wrap 1 or 2 turns of insulated portion of wire for secure connections

Part No.	Product No.	Description	1-4	5-9
34577	WSU30	Wrap-unwrap tool..	$23.95	$21.49
34585	WSU30M	Modified tool..........	24.95	22.49

Jameco Crimping Tool
- Heavy-duty metal crimping tool with cutter
- For computer pins and sockets, D-sub 28-26 AWG wire
- For butt-insulated connectors, 26-22 AWG wire
- For telephone spade lugs, 26-22 AWG wire
- For non-insulated connectors, 22-20 AWG wire
- For non-insulated connectors, 18-14 AWG wire
- Red insulated handles • Coiled spring return
- Size: 7.3"L x 1.5"W • Weight: 0.5 lbs.

Part No.	Product No.	Description	1-9	10-24
99442	H202A	Crimping tool	$7.95	$7.25

Jameco 7 in 1 Hand Tools
- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Scale: mm and inch
- Crimping tool • Closed lock
- Solderless connector crimper
- Size: 6.6"L x 3.0"W • Weight: 0.4 lbs.   18796

Part No.	Product No.	Description	1-9	10-24
18796	HT104	10-18AWG – red.....	$3.95	$2.95
127870	HT1043	22-30AWG – yellow..4.95	4.49	
127861	HT1042	16-26AWG – blue 4.95	4.49	

Jameco Precision 5 Piece Stainless Steel Plier Set
- 5 pc. set includes: micro cutting nippers (3.5"L), micro round nose pliers (4"L), micro long nose pliers (4"L), micro flat nose pliers (4"L) and micro bent nose pliers (4"L)
- Spring return
- Insulated handles

Part No.	Description	Wt. (lbs.)	1-4	5-9
73120	5 piece set	0.6............	$16.95	$14.95

Jameco Flat and Half Round Long Nose Pliers
- Great for straightening bent IC pins and miscellaneous components or for bending relay springs
- Use for making radius bends in wires and components (P/N 35490)
- Stainless steel
- Durable rubber handles
- Jaws will not damage parts   35473
- Spring return • 5.3" length w/ 1.4" plier nose

Part No.	Product No.	Description	Wt. (lbs.)	1-9	10-24
35473	AX102	Flat long nose	0.2	$4.95	$3.95
35490	AX104	Half round	0.2	4.95	3.49

Jameco Diagonal Wire Cutter
- Cuts component wire up to 1.2mm thick
- Stainless steel
- Spring return
- Durable rubber handles
- Jaws are designed for flush cutting
- Weight: 0.1 lbs.
- 4.3"L x 2.1"W with 0.5" cutting blade

Part No.	Product No.	Description	1-9	10-24
35481	AX103	Wire cutter	$4.95	$4.49

Jameco Wire Cutters/Strippers
- Red insulated handles
- Spring return
- Tempered steel cutting edge
- Adjustment for wire gauges
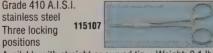- Size: 5.0"L x 3.0"W
- Weight: 0.2 lbs. • One-year warranty   79003

Part No.	Description	1-9	10-24
79003	For use with 12-18 AWG wire...	$3.25	$2.49
78991	For use with 10-30 AWG wire.....	3.25	2.95

5" Steel Hemostats
- Grade 410 A.I.S.I. stainless steel
- Three locking positions   115107
- Available with straight or curved tip • Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-24
115107	HEMO1	5" straight hemostat...	$3.95	$3.49
115115	HEMO2	5" curved hemostat	3.95	3.49

10 Piece Hex Key Wrench Sets
- 72469 includes 1.5, 2, 2.5, 3, 4, 5, 5.5, 6, 8, and 10mm wrenches
- 72477 includes 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8" wrenches   72469

Part No.	Description	Wt. (lbs.)	1-9	10-24
72469	Metric hex key	0.6............	$3.95	$2.95
72477	Standard hex key	0.5............	3.95	3.49

Jameco PLCC Surface Mount, DIP IC and PGA Extractors
        16838   16766

Part No	Size	Wt. (lbs.)
16838	4.0"L x 2.0"W	0.04
16766	4.0"L x 2.0"W	0.06
132169	3.2"L x 1.5"W	0.02

        132169

Part No.	Product No.	Description	1-9	10-99	100+
16838	EXD	DIP IC ext. ..	$1.49	$1.25	$.99
16766	ESM★	PLCC IC ext.	3.95	3.49	3.19
132169	EXP	PGA IC ext. ...	3.95	3.49	2.95

Jameco IC Pin Straightener
Straighten bent pins safely and easily with Jameco's IC pin straightener.
- Includes a ground terminal
- Straightens 8/14/16/18/20/24/28/40/42 pin ICs
- Color/materials: black plastic
- Size: 3.3"L x 1.5"W x 0.4"H • Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-24
99362	ICS01	IC pin straightener...	$6.95	$5.95

9 Piece Assorted Drill Bit Kit
- Variety of sizes: .014" to .126"
- Each kit will vary in contents of bit sizes • Shank dia.: .125"
- Includes plastic case
- Weight: 0.1 lbs.

Part No.	Description	1-9	10-49
131676	9-piece drill bit kit..................	$9.95	$8.95

Spiral Step Tool Company PC Drill Bits
- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Use for drilling holes in glass PC boards
- Weight: 0.1 lbs. • Shank diameter: .125"

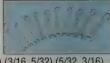| Part Number	Drill Dia.	No.	Application	1-9	10-99	100+
16580	.040"	59	Plated thru holes	$1.75	$1.49	$.99
16598	.036"	64	IC's, 1/4W resist.	1.95	1.75	1.49
16601	.031"	68	IC's, 1/4W resist.	1.95	1.75	1.49
16619	.021"	75	Miscellaneous......	1.75	1.49	.99

Jameco Mini-Drill and Stand
This Mini Drill (26702) is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling and grinding (sanding) attachments. Drill stand (26711) is designed to function like a drill press.

Shown w/ drill (26702) & stand (26711)

Part No.	Product No.	Wt.(lbs.)	Description	1-4	5-9
26702	MS398	0.8	Mini drill ...	$29.95	$24.95
26711	MS399	1.8	Drill stand ...	19.95	14.95

10 Piece Open-end/Box Wrench Set
- Includes 10 wrenches w/ the following sizes: (3/8, 7/16) (11/32, 3/8) (5/16, 11/32) (9/32, 5/16) (1/4, 9/32) (15/64, 1/4) (13/64, 7/32) (3/16, 5/32) (5/32, 3/16)
- Material: alloy steel • Weight: 0.3 lbs.

Part No.	Product No.	Description	1-9	10-24
99602	WS608	10 pc. wrench set....	$8.95	$7.95

Jameco 11 Piece Tool Kit

- (2) Slotted screwdrivers: 1/8", 3/16"
- (2) Phillips screwdrivers: #0, #1
- (2) Nut driver: 3/16", 1/4"
- (2) Torque screwdrivers: T-10, T-15
- Tweezers • 3-claw parts holder
- 14-16 pin IC inserter/straightener
- 14-40 pin IC extractor • Black vinyl carrying case
- Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.2 lbs.

Part No.	Description	1-4	5-9
14189	Computer service tool kit ..... SALE		$14.95

Jameco 66 Piece Tool Kit

Comprehensive Kit for Field Technicians and Engineers!

Aluminum case features removable pallets, surface-type locks, a black plastic handle, side buckles and a strap. See matrix below for list of tools.

- Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.

Part No.	Description	1-4	5-9
105646	66 piece tool kit..............	$179.95	$161.95

Jameco 51 Piece Tool Kit

Essential Kit for Electronic Machine Maintenance and Repair Jobs!

See matrix below for list of tools. Black vinyl-covered case features removable pallets, a combination lock and a cushioned, black plastic handle.

- Size: 12.5"L x 17.5"W x 3.5"H • Weight: 10.4 lbs.

Part No.	Description	1-4	5-9
26681	51 piece tool kit.................. SALE		$99.95

Jameco 26 Piece Hobby Tool Set

- 6 screwdrivers (Phillips #0, #1, slotted 0.05", 0.08", 0.09", 0.12")
- 10 bits: 5, 6mm #No.1, #No.2, No.1, No.2, T-10, T-15, T-20, socket adapter
- Handle • Extension bar
- Stainless steel tweezers • Sockets: 5, 6, 8, 10mm
- 4" long nose pliers • 4" side cutter
- Plastic carrying case • Weight: 1.2 lbs.

Part No.	Description	1-4	5-9
99629★	26 piece tool set..................$19.95		$16.95

Jameco 55 Piece Tool Kit

An assortment of tools for general and precision work for technicians, engineers, students, etc.

- In addition to the tools listed (see matrix below), the kit includes:
  – 8" lineman's pliers – screwdriver handle
  – 6 piece mini-hammer set – heat sink
  – 5 piece of double edge blade
  – 3 piece solder aid
- Carrying case has outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (see pages 91, 93 & 94)
- Case size: 17.6"L x 12.8"W x 4.0"H
- Weight: 9.2 lbs. • One-year warranty

Part No.	Description	Price
136311	55 piece tool kit $119.95

Jameco 26 Piece Tool Kit

Excellent Kit for Electronics Repair and Maintenance!

See matrix below for list of tools.

- 2-in-1 carrying case has separate pocket to carry documents
- Weight: 7.0 lbs.
- Size: 16.0"L x 12.0"W x 4.0"H

Part No.	Description	1-4	5-9
135968	26 piece tool kit $79.95		$71.95

Jameco 40 Piece Tool Kit

Includes: IC inserter with pin straightener, IC extractor, extra long 3-claw parts holder, slotted and Phillips screwdriver bits, metric nut driver sockets (6mm-12mm), S.A.E. nut driver sockets (3/16"-1/2"), reversible torque-screwdriver bits (T10-T25), potentiometer alignment tools, adapter bit for sockets, wire cutters and stripper and pocket clip screwdriver.

- Zipper vinyl case
- Size: 9.5"L x 6.8"W x 1.4"H • Weight: 1.7 lbs.

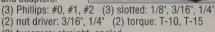| Part No.	Description	1-4	5-9
119183★	40 piece tool kit $17.95		$14.95

22 Piece VCR Tool Kit

- 7 special tools for VCR alignment/repair
- Protective vinyl pouch
- VHS, VCR head puller
- 3 reversible flat & Phillips screwdrivers: 7.5"L, 0.24"Dia., 0.19"Dia., 0.12"Dia.
- Micro screwdriver: 0.1"Dia. No.0 x 1.32"L Phillips
- Hex wrench set qty: 8 (0.03"Dia. - 0.13"Dia.)
- Spring hook tool • Weight: 1.6 lbs.

Part No.	Description	Price
99611	22 piece tool kit $34.95

Jameco 15 Piece Computer Service Tool Kit

- Antistatic wrist strap
- 8 and 20 pin IC inserters
- IC extractor
- Screwdriver handle w/ 3.75" extender and adapters:
  (3) Phillips: #0, #1, #2   (3) slotted: 1/8", 3/16", 1/4"
  (2) nut driver: 3/16", 1/4"   (2) torque: T-10, T-15
- (2) tweezers: straight, angled
- Probe (logic & voltage +/-)
- Black vinyl carrying case
- Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.9 lbs.

Part No.	Description	Price
14171	Computer service tool kit .... SALE	$34.95

Jameco 8 Piece Insertion & Extraction Tool Kit

- Six IC insertion tools for: 8, 14/16, 18/20, 22, 24/28 and 32/40 pin ICs
- Universal extraction tool with insulated handle
- Black vinyl carrying case with zipper
- Size: 7.8"L x 5.0"W x 1.5"H • Weight: 0.6 lbs.

Part No.	Description	Price
104707	IC insertion/extraction tool kit ... SALE	$17.95

Parts Included in Kit	136311	135968	26681	105646
Carrying case	X	X	X	X
7-piece hex key wrench	X	X	X	X
Electrician's tape			X	
Needle nose pliers	X	X	X	X
Bent needle nose pliers	X		X	
Diagonal cutting pliers	X	X	X	X
Flat nose pliers	X	X	X	X
Tweezers	2	X	X	X
Heavy-duty utility knife	X	X	X	X
Stainless steel scissors			X	X
Adjustable wrench	X	X	X	X
30 watt soldering iron	X	X	X	X
Desoldering pump	X	X	X	X
Soldering stand			X	X
Rosin core solder	X	X	X	X
Brush	X		X	X
Brush and scraper			X	X
Fine point probe			X	X
Slotted probe			X	X

Parts Included in Kit	136311	135968	26681	105646
Utility components box			X	X
6 precision screwdrivers	X		short	long
Screwdriver set	2-pc	6-pc	10-pc	11-pc
Needle files	5		2	5
Long nose pliers with cutter				X
5-way crimping tool	7-way			X
10-piece mini wrench set				X
3-prong holder	X			X
Electrical test screwdriver		X		X
Anti-static strap	X			X
Cassette head cleaning fluid				X
Compact disc spray cleaner				X
Mini vacuum cleaner				X
Mini drill				X
Hobby vise				X
Mini-flashlight	X			X
IC extractor	X	X		X
Digital multimeter			X	
10 foot measuring tape		X	X	

Bench Top PC Board Holder with Soldering Stand

- Holds PC boards up to 13" wide
- Can be adjusted by using press release and sliding support arm to hold desired size board
- Size: 19.5"L x 8.8"W x 8.8"H • Weight: 4.6 lbs.

Part No.	Description		Price
133065	Soldering stand.......... Closeout		$19.95

Jameco Clamp Vise

- Lightweight, sturdy construction
- Nylon jaws open 2"
- Ball cup allows vise to adjust to any angle
- No tools needed – finger turn to tighten
- Size: 10.0"L x 2.5"W • Weight: 2.1 lbs.

Part No.	Description	1-4	5-9
127167	Clamp vise............. SALE		$17.95

Jameco Third Hand

- Frees your hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight (P/N 26690): 0.7 lbs. (P/N 72864): 1.4 lbs.

Part No.	Description	1-9	10-24
26690	Third hand....................	$4.95	$4.49
72864	Third hand w/ soldering holder..	7.95	7.19

PANAVISE Vacuum Vise

- Features the patented "split ball" that will tilt, turn and rotate through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty

Part No.	Product No.	Description		Price
27131	M381	Vacuum vise..............		$59.95

PANAVISE Electronic Work Center

- Circuit board holder, standard base, tray base mount, solder station, sponges, and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty

Part No.	Description		Price
27060	Electronic work center......................		$79.95

PANAVISE PVjr. Vice

- Jaws open to 2.8", are 1"W x 2"T and are heat tolerant to 350°F
- Vertical/horizontal jaw grooves help hold work
- Fine/course adjusting knob
- The vise neck tilts, turns and rotates
- Base bolt is 4.3" and fits all PanaVise base mounts
- Vise height: 6.8" • Weight: 1.4 lbs.
- One-year warranty

Part No.	Description		Price
134439	Jr. vice w/ mountable base................		$21.95

Economy Punch-Down Tool

- Terminates 66-type bifurcated terminals
- Reversible blade – one end terminates and the other terminates and cuts the wire
- Handle made of polyacepal resin and fiberglass
- Handle size: 5.6"L x 1.2"W x 1.1"H • Weight: 0.1 lbs.

133161: • Weight: 0.03 lbs. • One-year warranty

Part No.	Description	1-4	5-9
133153	Punch-down tool w/ blade...$19.95		$17.95
133161	Punch-down 110 blade............9.95		8.95

Weidmuller ⅏ Paladin Tools Impact Punch-Down Tool

Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spare storage blade in the handle.

124142:
- For 66-type bifurcated terminals • One-year warranty
- Size: 7.0"L x 1.4"W x 1.1"H • Weight: 0.4 lbs.

124151: Punch-down blade for 110-type terminals
- Weight: 0.1 lbs. • One-year warranty

Part No.	Description	1-4	5-9
124142	Punch-down tool w/ blade...$49.95		$44.95
124151	Punch-down 110 blade..........14.95		13.49

4 Piece Alignment Tool Set

- Includes 4 plastic alignment tools with multiple functions
- Flat screwdriver function & hex • Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-24
99637	ATS606	4 piece tool set.......$3.95		$3.49

8 Piece Steel File Set

- (1) 0.15"Dia. x 5.65"L
- (1) 0.13"Dia. x 5.65"L
- (4) 0.22"Dia. x 5.65"L
- (1) 0.12"Dia. x 5.65"L
- (1) 0.11"Dia. x 5.65"L
- Material: tool steel • Weight: 0.2 lbs.

Part No.	Product No.	Description	1-9	10-24
100360	FS108F	8 piece file set.......$8.95		$7.95

ESP Vac Tweezer

Pick and place small parts of all kinds, glass slides, coins, optics, SMDs, film or any other small items. Contains:
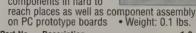(5) pad sizes- 0.140" to 0.400", (5) straight tips, (2) 45° angle tips • One-year warranty
- Size: 2.9"L x 0.6"W • Weight: 0.1 lbs.

Part No.	Description	1-4	5-9
88268	Vacuum pick & place kit......$29.95		$26.95

4 Piece Steel Tweezer Set

- 4 different style stainless steel tweezers, including one self-locking
- Ideal for picking up small components in hard to reach places as well as component assembly on PC prototype boards • Weight: 0.1 lbs.

Part No.	Description	1-9	10-24
10735	4 piece tweezer set............$6.95		$6.25

Deluxe Precision Knife Set

- Three different knife handles – fine work, medium and heavy duty power grip
- 13 different types of blades included • Weight: 0.4 lbs.
- Size: 6.3"L x 2.8"W x 1.4"H

Part No.	Description	1-9	10-24
72768	13 blade knife set................$7.95		$6.95

8 Piece Electrician Screwdriver Set

Eight screwdrivers
- Insulated handle and blade protection-up to 1000V
- Four flat points: 0.24"Dia. x 9.91"L; 0.2"Dia. x 8.92"L; 0.16"Dia. x 7.54"L; 0.1"Dia. x 6.10"L
- One flat point with Buz light: 0.16"Dia. x 7.4"L
- Three Phillips: No. 0, 0.1"Dia. x 6.10"L; No.1, 0.16"Dia. x 7.54"L; No.2, 0.24"Dia. x 9.91"L
- Material: chrome-vanadium • Weight: 1.2 lbs.

Part No.	Product No.	Description	1-9	10-24
99688	SD315B	8 pc. screwdriver set..$9.95		$7.95

6 Piece Electronic Screwdriver Set

- Three flat points: 0.09"Dia. x 6.65"L; 0.12"Dia. x 6.64"L; 0.16"Dia. x 9.61"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L • Weight: 0.4 lbs.

Part No.	Product No.	Description	1-9	10-24
99451	SD3106	6 pc. screwdriver set..$7.95		$6.95

6 Piece Screwdriver and Pliers Set

- One micro cutting nippers
- One micro flat nose pliers
- Two flat points: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L
- Two Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L • Weight: 0.5 lbs.

Part No.	Product No.	Description	1-9	10-24
99565	SD3105	Screwdriver/plier set .. SALE		$9.95

6 Piece Precision Screwdriver Sets

- 34041 includes 3/64", 1/16", 5/64", 5/32", 1/8" and 9/64" slotted screwdrivers • Weight: 0.3 lbs.
- 34059 includes 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers • Weight: 0.2 lbs.

Part No.	Product No.	Description	1-9	10-24
34041	TS59	Slotted screwdriver set	$2.95	$2.65
34059	TS60	Phillips screwdriver set	2.95	2.65

Electrician's Insulated Nut Drivers

140960 140927 140978 140935 140951 140943 140919

- Molded shaft insulation to help protect against accidental power contact • Weight: 0.3 lbs.

Part No.	Description	1-4	5-9
140919	3/16" insulated nut driver....... SALE		$2.95
140943	1/4" insulated nut driver....... SALE		2.95
140935	5/16" insulated nut driver....... SALE		2.95
140951	11/32" insulated nut driver....... SALE		2.95
140978	3/8" insulated nut driver....... SALE		2.95
140960	7/16" insulated nut driver....... SALE		2.95
140927	1/2" insulated nut driver....... SALE		2.95

5 Piece Precision Nut Driver Set

- Includes one each of the following nutdrivers: 1/8", 9/64", 5/32", 11/64", 3/16"
- Size of driver: 4" length
- Case size: 5.3"L x 3.0"W
- Weight: 0.3 lbs.

Part No.	Product No.	Description	1-9	10-24
34067	TS67	Prec. nut driver set....$2.95		$2.65

JAMECO Universal EPROM Programmer
Serial Port with Windows® Drivers

NEW

- Programs serial PPROM, MPU/MCU, PLD, EPROM, EEPROM, BPROM, Pals and Gals • On-off switch to increase life of unit
- 40-pin universal ZIF socket • Full screen buffer editor
- File formats supported: Intel Hex and Hex-32 extended hex, Motorola Hex, Tektronix Hex, TI SOSMAC hex, Straight Hex, MD16Hex, Digital Research Hex, and Binary
- 4-way and 8-way binary file shuffler • 2-way and 4-way word binary file splitter and file shuffler
- System requirements: IBM 486/Pentium® or compatible PC, approx. 10 to 20MB of free disk space, Windows® 3.x/Windows® 95, one free serial port
- Includes 5' 10" power cord, 41" cable with two 9-pin D-type connectors, DE9-DB25 adapter, (5) 3.5" software disks, device list and manual • Size: 9.5"L x 9.0"W x 2.0"H • Weight: 5.5 lbs. • One-year warranty

Part No.	Description	Price
145331	Universal EPROM programmer serial port with Windows® drivers	$999.95

JAMECO 1 Socket 16KB-512KB E(E)PROM Programmer

FTP

OUTSTANDING VALUE!

CE

- Programs EPROMs, EEPROMs
- Programs 16Kbits to 512Kbits EPROMs
- Programming speeds/algorithms: normal, intelligent, and quick pulse
- File formats supported: Intel Hex, Motorola S Hex, Tektronix Hex, and binary
- Address available: 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 2A0, 2B0, 2C0, 2D0, 2E0, 2F0
- Menu driven software • Maximum pins: 28
- 2 & 4-way binary file splitting and shuffler programs
- Full screen buffer editor • One-year warranty
- Includes adapter card, software, manual and 3' cable
- Size: 7.0"L x 5.5"W x 1.8"H • Weight: 2.4 lbs.

Part No.	Description	Price
101400	1 socket 16Kbits-512Kbits	$129.95

JAMECO 4 Socket 16KB-8MB E(E)PROM Programmer

VALUE
FTP
CE

- Programs EPROMs, EEPROMs, and Flash memories
- Programs 16Kbits to 8Mbits EPROMs
- Programs up to 4 chips simultaneously
- Programming speeds/algorithms: normal, intelligent, and quick pulse
- File formats supported: Intel Hex, Motorola S Hex, Tektronix Hex, and binary • Maximum pins: 32
- Address available: 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 2A0, 2B0, 2C0, 2D0, 2E0, 2F0
- Menu driven software • Full screen buffer editor
- 2 & 4-way binary file splitting and shuffler programs
- Includes adapter card, software, manual and 3' cable
- IBM PC/XT/386/486 compatible
- Size: 7.0"L x 5.0"W x 1.3"H • Weight: 2.8 lbs.
- One-year warranty

Part No.	Description	Price
132556	4 socket 16Kbits-8Mbits	SALE $269.95

ART Applied Reader Technology 1 Socket 1MB and 8MB EPROM Programmers

Can be operated from any host system equipped with an RS232 interface!

CE

82384

Specifications:
- Operating voltage: 115 VAC • Interface: RS232
- Power consumption: 8VA • ZIF socket
- Connector: DB25 (female)
- Will work with any serial communication software such as Procomm Plus
- Motorola s1f, s2f and s3f can convert to binary or ASCII prior to down load
- Baud rate configurable per one digit commands (no faster than 19,200 bps)
- Data bits: 8 • Start/Stop bits: 1
- Parity: none, even, odd, default none
- Data formats: Motorola s1f, s2f, s3f
- Flow control: none, RTS/CTS, XON/XOFF, Default RTS/CTS • One-year warranty
- Dimensions: 6.5"L x 4.0"W x 2.3"H

82384: • Programs all current EPROMs up to 512Kbits and the Intel 27C011 (1Mbits); 2716-27512; 2804-8256; also 27CXXX and 28CXXX series • Maximum pins: 28
- Selectable VPP from 5V-25V • Weight: 2.4 lbs.

81699: • The command line interpreter enables the user to enter one or more single character commands at once • Maximum pins: 32
- Programs EPROMs up to 8Mbits: 2716-27080; 2804-28256; also 27CXXX and 28CXXX series
- Weight: 3.0 lbs.

Part No.	Description	Price
82384	1Mbits EPROM prog.	$189.95
81699	8Mbits EPROM prog.	219.95

JAMECO 1 Socket 16KB-8MB E(E)PROM Programmer

FTP

- Programs EPROMs, EEPROMs, and Flash memories
- Programming speeds/algorithms: normal, intelligent, and quick pulse
- Menu driven software

CE

- File formats supported: Intel Hex, Motorola S Hex, Tektronix Hex, and binary • Maximum pins: 32
- Address available: 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 2A0, 2B0, 2C0, 2D0, 2E0, 2F0
- 2 & 4-way binary file splitting and shuffler programs
- Includes adapter card, software, manual and 3' cable
- Full screen buffer editor • One-year warranty
- Size: 7.0"L x 5.0"W x 0.7"H • Weight: 2.3 lbs.

Part No.	Description	Price
132468	16Kb-8MB E(E)PROM prog.	SALE $189.95

JAMECO Parallel Port 16KB-8MB Universal IC Programmer/Tester

- Parallel port interface
- 40-pin universal ZIF socket
- Programs PROMs, EPROMs, Flash memories, bipolar PROMs PALs, PLDs, GALs & MPUs

Optional adapters available — additional adapters may be special ordered

- Functional testing of 7400, CD4000, CD4500, series logic devices and DRAM and SRAM memory

FTP

- Electronic device identification for TTL
- Programs 16Kbits to 8Mbits EPROMs
- Includes: programmer, cable, menu-driven software and user's manual
- System requirements: 286/386/486/Pentium® or compatible PC; 2MB memory, 3.5" floppy disk drive, MS-DOS version 3.3 or later. Hard disk drive
- Cable length: 3.3' • Color: gray • One-year warranty
- Size: 11.2"L x 9.6"W x 2.4"H • Weight: 8.6 lbs.

Part No.	Description	Price
137023	Parallel univ. programmer/tester	$799.95

JAMECO 1 Socket 16KB-8MB Universal IC Programmer and Tester

FTP

132450

104651

CE VALUE

- Programs PROMs, EPROMs, EEPROMs, Flash memories, Bipolar PROMs PALs, PLDs, GALs & MPUs
- Functional testing of 7400, CD4000, CD4500, series logic devices and DRAM and SRAM memory
- Electronic device identification for TTL
- Programs 16Kbits to 8Mbits EPROMs
- Includes On-Off switch to increase the life of the unit. (Programmer is not automatically turned on every time the computer is powered up. This prevents unnecessary wear of the unit.)
- Anti-static pad on the unit provides a convenient place to put ICs while you work with them
- 40-pin universal ZIF socket • Maximum pins: 40
- Programming speeds/algorithms: normal, intelligent, interactive, quick pulse, and flashrite
- Manufacturer and part number selection to ensure correct programming method
- File formats supported: Intel Hex, Motorola S Hex, Tektronix Hex, JEDEC and binary
- Address available: 278, 378, 3BC
- 2 & 4-way binary file splitting and shuffler programs
- Full screen buffer editor
- Includes: programmer, PC interface card, cable, menu-driven software and user's manual
- System requirements: PC/XT/AT/386/486 or compatible PC; maximum clock speed 50MHz, turbo mode; minimum 640Kbits memory, minimum one 5.25" floppy disk drive, MS-DOS version 3.0 or later. Hard disk drive recommended
- Cable length: 3.3' • Color: gray • Weight: 7.6 lbs.
- Size: 11.3"L x 9.8"W x 2.5"H • One-year warranty

Part No.	Description	Price
104651	Univ. IC programmer/tester	$649.95

PC Interface Card and Cable
- Weight: 0.7 lbs. • One-year warranty

Part No.	Description	1-4	5-9
132450	Card/cable for univ. prog.	$49.95	$44.95

DATAMAN Hand-held EPROM Programmer/Emulator

As seen in Circuit Cellar Magazine

- 512Kbits of RAM
- Supports EPROMs, EEPROMs and Flash memories up to 8Mbits
- Self-powered and completely portable – ideal for field service work
- Can operate for several days on its internal Ni-Cad battery, which can be fully recharged in less than an hour while programming
- CMOS memory retains data you load into it, even when the unit is off
- Full 24 byte on-screen editor
- Big, easy-view 80 character supertwist LCD
- Maximum pins: 32
- Size: 7.0"L x 4.0"W x 2.0"H
- Weight: 3.2 lbs. • One-year warranty

FTP

FREE software upgrades for life
FREE emulation leads
FREE custom terminal software

Part No.	Description	Price
124003	EPROM programmer	$749.95

512K-Two Socket E(E)PROM Programmer

A compact unit that operates in two modes: "STAND ALONE MODE", which allows you to use it as a portable unit or in "REMOTE CONTROL MODE", which uses software to interface with your printer port.

- Programs EPROMs up to 25V, Flash EPROMs 5V and 12V, EEPROMs, and SRAMs
- 2 socket for master/slave operation
- For stand alone mode use 1-2 (9V) batteries (not incl.) or 9VDC adapter (included)
- Includes manual, cable, and 3.5" disk
- Size: 6.4"L x 4.3"W x 2.2"H
- Weight: 2.1 lbs. • One-year warranty

FUNCTIONS

Stand alone mode
- Functions Set - Blank check
- IC Type select - Program
- Verify and check sum

Remote control mode
- Type - Read - Program
- Verify - Disk - Help
- Process - Parameter

FTP

Part No.	Description	1-4	5-9
130155	EPROM writer	$279.95	$249.95

Telulex 20MHz Synthesized Function/Arbitrary Waveform Generator

- **Synthesized signal generator** DC-20MHz, 0.1Hz resolution, DC offset, .001% frequency accuracy; Internal/external AM, FM, PM, FSK, dualtone, sweep and more
- **Arbitrary waveform generator** 40 megasamples/second, 32,768 points, 12-bit DAC
- **Function generator** ramps, triangles, exponentials, noise & more to 2MHz
- **Pulse generator** digital waveforms with adjustable duty cycle
- RS232 remote control • TTL/CMOS SYNC output
- Size: 10.2"L x 9.3"W x 5.1"H • Weight: 6.6 lbs.
- One-year manufacturer's warranty

FTP

Part No.	Product No.	Description	Price
142842	SG100A	20MHz function/arb. gen.	$999.95

ARISTO Simcheck II® Advanced SIMM & DIMM Memory Tester

NEW

This tester can pay for itself in less than a day!

The Simcheck II tester has many advanced features and sophisticated circuitry, yet is easy to use. The fully automatic tests detect EDO, FPM, Static Column modes.

Call for DIMM Adapters!

- Portable stand-alone advanced memory tester
- Tests all standard 30 and 72-pin SIMM memory modules—maximum capacity is 4Gx40
- High speed 32-bit processor gives fast results
- Four line graphic LCD display shows clear test results: size, speed (+/1 1ns), module type, true cycle time
- Tests include Innovention's patented Chip Heat Mode
- Built in PC serial interface allows printing & logging
- Flash EPROM for internet software upgrades
- Expansion ports support optional adapters and interfaces for Automatic Handlers and a parallel printer
- Advanced setup modes allow for custom user defined tests
- 6 function control keys • One-year warranty
- Size: 9.5"L x 6.3"W x 1.5"H • Weight: 4.1 lbs.

FTP

Part No.	Description	Price
144856	Simcheck II® advanced tester... SALE	$1995.95

Simcheck Plus® SIPP & SIMM Tester

- Tests all standard 30-pin SIMM and SIPP memory modules up to 16M x 8/x9
- Tests 72-pin SIMMs up to 32M x 36
- 4 function control keys • One-year warranty
- Size: 6.8"L x 5.0"W x 1.5"H • Weight: 5.1 lbs.

Part No.	Description	Price
129883	Simcheck Plus® tester	SALE $1399.95

JAMECO EPROM Eraser

- Erases all UV erasable EPROMs
- Holds a total of 16 pieces of 32-pin EPROMs
- Has an upper and a lower chamber for erasing
- Includes a variable timer which turns eraser off at the end of the selected time period; can be set between 10 to 60 minutes
- AC adapter included (9VDC @ 600mA)
- Special conductive foam liner eliminates static build-up
- Size: 8.5"L x 2.8"W x 2.8"H • Weight: 1.6 lbs.
- One-year warranty

Part No.	Description	1-4	5-9
121267	EPROM eraser	$129.95	$116.95

Linear IC Tester

Identify and test op amps, comparators, optocouplers, transistor arrays, analog switches and voltage regulators.

- Tests 14 to 24-pin devices
- Display: 16 x 1 character LCD dot matrix
- Auto feature lists type and device number
- Uses (2) 9V batteries or 9V DC adapter (included)
- Size: 6.4"L x 4.4"W x 1.8"H • Weight: 1.7 lbs.
- One-year warranty

FTP

Part No.	Description	1-4	5-9
130147	Linear IC tester	$699.95	$649.95

JAMECO Portable IC Tester

Our hand-held IC tester is an easy-to-operate, cost effective unit that includes excellent functions.

- Tests 14 to 20-pin devices
- Identifies unknown part numbers
- Hand-held unit for complete portability
- Includes test, search, type and reset keys
- 16 character easy-to-read LCD displays results
- On-off switch • Battery included
- 20-pin text tool ZIF socket
- Supports the following: **TTL Series** [7400, 74LS00, 74F00, 74S00, 74ALS00, 74H00, 74L00, 74C00, 74HCT00,74HC00] **CMOS Series** [CD4000, CD4500] **DRAM 41 Series** [4164, 41256, 411000] **DRAM 44 Series** [4416 (41416), 4464 (41464), 44256 (414256)]
- Color: black • Size: 7.0"L x 3.6"W
- Weight: 1.0 lb. • One-year warranty
- Recommended P/N 15309 as optional DC wall transformer (pg 63)

FTP

Part No.	Description	1-4	5-9
73525	Portable IC tester	$149.95	$134.95

UVP EPROM Erasers and Accessories

15712:
- Erases all EPROMs
- Erases 1 chip in 15 minutes
- Erases 8 chips in 21 minutes
- Maintains constant exposure distance of 1"
- Special conductive foam liner eliminates static build-up
- Built-in safety lock to prevent UV exposure
- Complete with holding tray for 8 chips
- UV intensity: 6.8mW/cm²
- Size: 9.0"L x 3.7"W x 2.6"H • Weight: 2.3 lbs.
- One-year warranty

66042:
- Erases all EPROMs
- Erases 1 chip in 7 minutes
- Special conductive foam liner eliminates static build-up
- Battery operated. Four "AA" batteries required (not included). Recommended P/N 32627 (see below)
- UV intensity: 6.5mW/cm²
- Size: 6.8"L x 1.5"W x 2.3"H • Weight: 0.8 lbs.
- One-year manufacturer's warranty

Part No.	Description	Price
15712	8-chip UV-EPROM eraser SALE	$99.95
66042	UVP portable EPROM eraser SALE	49.95

Accessories

Part No.	Description	1-9	10-24
34382	Replacement lamp for 15712	$29.95	$26.95
13864	Conductive foam(12"x24"x0.25")	9.95	8.95
32627	'AA' Ni-Cad batteries (for 66042)	2.95	2.49

JAMECO IC Function Tester/Emulator

- Any DIP type IC up to 40-pins can be inserted into the universal TEST TOOL socket for function emulation
- A 360 tie point solderless breadboard provides free wiring space for any additional circuits
- Size: 10.0"L x 6.5"W x 1.5"H
- Weight: 1.5 lbs.
- One-year warranty

Closeout

Part No.	Description	Price
111907	Tester/emulator (52 in stock) Closeout	$49.95

VALUE 3½-Digit Multimeter

- Large easy to read display • Battery test: 1.5V & 9V
- AC voltage: 200mV-750V • DC volt.: 200mV-1000V
- AC/DC current: 200µA-10A • Diode test
- Resistance range: 200Ω-20MΩ • Continuity test
- Size: 3.3"W x 1.3"D x 7.3"H • Weight: 1.5 lbs.
- One-year manufacturer's warranty • See photo right

Part No.	Product No.	Description	1-4	5-9
113881	DM311	Multimeter	$49.95	$44.95

3¾-Digit 3200 Count Auto and Manual Ranging Multimeter

- Arcing bargraph display
- 10A input jack protection
- Auto power off (15 min.)
- Diode test • Data hold mode
- AC/DC voltage: 750V/1000V
- AC/DC current: 10A
- Resistance range: 32MΩ
- Size: 3.8"W x 1.8"D x 7.6"H
- Weight: 1.5 lbs.
- One-year manufacturer's warranty

Part No.	Product No.	Description	1-4	5-9
101936	DM333	Multimeter	$69.95	$62.95

3¾-Digital Multimeter with Frequency Measurement

- AC/DC voltage: 750V/1000V • AC/DC current: 10A
- Resistance range: 40MΩ • Diode test
- Overload protection voltage • Auto power off
- Frequency measurement: 10-1MHz • TR life check
- Size: 3.8"W x 1.8"D x 7.3"H • Weight: 1.5 lbs.
- One-year manufacturer's warranty

Part No.	Product No.	Description	1-4	5-9
121161	DM332	Multimeter	$99.95	$89.95

Benchtop Digital Multimeter

True RMS

- 4½ digit display, 5-digit green LED, 19999 count
- Vdc basic accuracy of 0.05% • Full overload protection
- Frequency measurement up to 200kHz
- Continuity check with beeper • True RMS in AC range
- Data hold, diode check, TR hfe measurement available
- 600V overload protection in resistance range
- DC voltage: 200mV-1000V • AC voltage: 200mV-750V
- DC/AC current: 2mA-10A • Resistance: 200Ω-20MΩ
- Size: 9.9"L x 9.8"W x 3.6"H • Weight: 6.1 lbs.
- One-year manufacturer's warranty

Part No.	Description	1-4	5-9
132564	Digital multimeter	$229.95	$206.95

20MHz Dual Trace Oscilloscope with 1MHz Function Generator

2 Instruments in 1

- Basic specs same as OS5020P (right above) plus...
- 1MHz function generator built in
- Frequency range: 0.1Hz to 1MHz (7 ranges)
- Output waveform: sine, triangle, square, TTL pulse
- Output impedance: 50Ω • Output voltage: 14Vp-p
- Power requirements: AC100/120/220/240V 50/60Hz-45W
- Size: 12.6"L x 12.6"W x 6.8"H
- Two-year manufacturer's warranty

Part No.	Product No.	Description	Price
94650	OS9020G	Function generator	$499.95

100MHz Oscilloscope

Free Meter Offer!

- DC to 100MHz, 2-ch dual trace
- Signal delay with delay line
- Auto focusing according to the change of intensity
- Size: 16.9"L x 12.6"W x 5.5"H
- Weight: 22.8 lbs.
- Two-year manufacturer's warranty

DM311 free meter w/ 100MHz purchase

Part No.	Product No.	Description	Price
121179	OS9100P	Oscilloscope	$949.95

20MHz Dual Trace Oscilloscope

Blue CRT for higher resolution!

- 6" rectangular high resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: .2µS/div to .2S/div in 19 calibrated steps, 1-2-5 sequence
- Max signal input voltage: 250V (DC and peak AC)
- Power requirements: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50/60Hz, 45W
- ADD function measures sum of two signals
- Includes: two 40MHz probes (X1 & X10), power cord, manual, schematics, block and wiring diagram
- Size: 16.4"L x 12.6"W x 5.3"H • Weight: 20.8 lbs.
- Two-year manufacturer's warranty

Part No.	Product No.	Description	Price
136098	OS5020P	20MHz scope	$399.95

2MHz Function Generator

- Frequency range: .02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- Linear sweep control from 1:1 to 100:1
- DC offset voltage from 0 to ±10V can be superimposed to output waveform
- Output volt.: 20Vp-p (open circuit) 10Vp-p (into 50Ω)
- Power requirements: 110V/220V 50/60Hz, 20W
- Includes: power cord, BNC to clip cable, fuse and manual • One-year manufacturer's warranty
- Size: 10.0"L x 8.0"W x 3.0"H • Weight: 5.4 lbs.

Part No.	Product No.	Description	1-4	5-9
66069	FG8002	Function gen.	$199.95	$179.95

100MHz Oscilloscopes

- DC to 100MHz bandwidth
- Dual time base
- HF/LF reject trigger filters
- Delayed sweep, cursor readout, autoset functions, audible knobs • Blue CRT for higher resolution
- Channel 1 output • 5ns / div. fast sweep rate
- 400V max. input voltage • SMT motherboard
- Weight: 23.0 lbs. • Two-year warranty

Part No.	Product No.	Description	Price
143773	OS5100RA	8 trace 4 channel	$1649.95
143765	OS5100RB	4 trace 2 channel	1399.95

2MHz Sweep Function Generator with 4-Digit Green LED Frequency Counter

- General specifications same as FG-8002 (left below) plus....
- Output impedance: 50Ω or 600Ω
- Counter: frequency range: 2Hz to 2MHz (Ext. 4MHz)
- Maximum input voltage: 150 VRMS at 1kHz
- Power requirements: AC 100/120/220/240V 50/60Hz
- Size: 10.3"L x 10.0"W x 3.2"H • Weight: 5.8 lbs.
- One-year warranty

Part No.	Product No.	Description	Price
94676	FG2002C	Function generator	$299.95

1.3GHz Frequency Counter

- 8-digit green LED display
- Totalize RPM, period
- Gate time: 0.01s, 0.1s, 1s, 10s
- Input power: AC 110V/220V ±10%, 50/60Hz
- Includes: probes, two fuses and manual
- Size: 10.3"L x 10.0"W x 3.2"H • Weight: 5.3 lbs.
- One-year warranty

Channel	Frequency Range	Resolution
A	0.2Hz-150MHz	0.1µHz-10kHz
B	50MHz-1.3GHz	0.1µHz-10kHz

Part No.	Product No.	Description	1-4	5-9
55790	FC2130	1.3GHz freq counter	$299.95	$269.95

Digital and Analog DC Power Supplies

30VDC @ 3 Amps

101928 inset

- Output voltage: 0-30V
- Output current: 0-3A
- Can be used for positive or negative source
- Overload protection circuit
- Constant current and constant voltage operation
- Power requirements: 100AC @ 60Hz
- Size: 5.2"W x 5.6"H x 10.0"D • One-year warranty

121152

Part No.	Product No.	Description	Wt. (lbs.)	1-4	5-9
101928	GP4303A	Analog DC	10.9	SALE	$189.95
121152	GP4303D	Digital DC	10.7	SALE	$199.95

JAMECO Logic Probe

- Max Frequency: 50MHz
- Minimum detectable pulse: 10ns
- 120kΩ input impedance
- Maximum supply voltage: ±25V
- TTL threshold: (Lo) +0.8V ±0.1V, (Hi) +2.3V ±0.2V
- CMOS threshold: (Lo) 30% VCC ±10%, (Hi) 70% VCC±10%
- No batteries required
- Size: 9.3"L x 2.8"W x 1.0"H • Weight: 0.3 lbs.

Part No.	Product No.	Description	1-4	5-9
26665	MS104	Logic probe	$29.95	$26.95

High Voltage AC/DC Test Probe

- Maximum voltages:
  DC: 40kV,
  AC: 40kV, 28kVRMS
- Accuracy:
  DC: ±2%, AC: ±3%
- Works with a voltmeter or multimeters with 10MΩ input impedance and high voltage leads
- Input/output impedance: 1,000MΩ/1.1MΩ
- Cable length: 39" • Probe length: 14"
- Weight: 0.8 lbs. • One-year warranty

Part No.	Description		Price
132290	High voltage test probe	SALE	$79.95

AINES Tone Generator and Inductive Probe

Identify the termination point and/or path of metallic wiring in addition to performing continuity and polarity checks!

- 2 tracing tones, solid or warble
- 3-color LED • Each uses one standard 9V battery
- Weight: 0.7 lbs. • One-year warranty

Part No.	Description		Price
123596	Tone generator/ind. probe	SALE	$89.95

Digital Hand-held 5MHz Sampling Rate Oscilloscope

- Maximum sampling frequency: 5MHz for repetitive signals
- Maximum sampling frequency: 0.5MHz for single shot events
- Input impedance: 1MΩ/20pF
- Maximum input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND
- Linearity: ± 1 bit • LCD graphics: 64 x 128 pixels
- Time base: 2µs to 20s/div
- Input sensitivity: 5mV to 20V/div
- Trigger mode: normal, auto or single
- Trigger edge: rising or falling • Freeze frame function
- True RMS or peak-to-peak readout
- Markers for voltage and time measurement
- AC power 9V adapter (not included – P/N 100845, pg 62)
- Probes not included – use P/N 22891 (above right)
- Size: 9.0"L x 4.9"W x 1.5"H • Weight: 2.4 lbs.
- One-year warranty

Part No.	Description	Price
135941	5MHz Oscilloscope	$269.95

250MHz Oscilloscope Probe

- Standard BNC male connector
- Hook and pointed probe
- Aligator clip ground wire
- 5' cable
- Max. input voltage: 600VDC
- Includes extra probes • Weight: 0.3 lbs.

with oscilloscope input 20pf

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	150MHz
Bandwidth (3dB)	6MHz	250MHz
Impedance (R/C)*	1MΩ /150pf	10MΩ /14pf

Part No.	Product No.	1-9	10-24	25+
140687	LF290WR	$39.95	$35.95	$31.95

JAMECO 100MHz Modular Oscilloscope Probe

- Standard BNC male connector
- Hook and pointed probe
- Alligator clip ground wire
- 5' cable • Max: 600VDC • Weight: 0.3 lbs.

with oscilloscope input 20pf

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	60MHz
Bandwidth (3dB)	6MHz	100MHz
Impedance (R/C)*	1MΩ /150pf	10MΩ /14pf

Part No.	Product No.	1-9	10-24	25+
66149	LF210	$29.95	$26.95	$23.95

JAMECO 60MHz Modular Oscilloscope Probe

- Standard BNC male connector
- Hook and pointed probe
- Alligator clip ground wire
- Max: 600VDC
- 5' cable • Weight: 0.2 lbs.

with oscilloscope input 30pf

Attenuation	x1	x10
Bandwidth (1dB)	3MHz	40MHz
Bandwidth (3dB)	6MHz	60MHz
Impedance (R/C)*	1MΩ /180pf	10MΩ /22pf
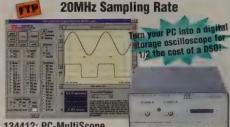
Part No.	Product No.	1-9	10-24	25+
22891	LF189★	$19.95	$17.95	$15.95

JAMECO Logic Pulser

- Compatible with TTL, DTL, RTL, HTL, HNIL, MO and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continuous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10µs
- Pulse mode output current: 10mA
- Square wave current output: 5mA • Audible tone
- Size: 7.8"L x 1.0"W x 0.6"H • Weight: 0.2 lbs.

Part No.	Product No.	Description	1-4	5-9
24601	LP540	Logic pulser	$19.95	$17.95

mission technology PC-MultiScopes 20MHz Sampling Rate

Turn your PC into a digital storage oscilloscope for 1/2 the cost of a DSO!

134412: PC-MultiScope
- 20MHz sampling; dual ch.; 2MHz analog bandwidth
- Frequency analyzer (FFT) and transient signal modes
- 5mV/div to 5V/div; connects to PC parallel port
- Includes parallel port cable, 18VACT power supply alligator clip probe; MS Windows® 3.1/95 compatible software and manual • One-year warranty
- Size: 5.7"L x 6.7"W x 1.8"H • Weight: 4.6 lbs.

142834: PC-MultiScope 2
- Same as above with 20MHz sampling; 10MHz analog bandwidth; built-in external trigger
- 1mV/div to 10V/div; built-in adjustable DC power supply output (-7 to +7VDC, 150mA) • Wt.: 3.8 lbs.

144135 & 144127: Source Code
- Buy the corresponding source code module to create your own custom data acquisition programs
- Weight: 0.1 lbs.

Part No.	Description		Price
134412	PC-MultiScope		$299.95
144135	PC M source code	SALE	69.95
142834	PC MultiScope 2		399.95
144127	PC M2 source code	SALE	69.95

velleman Digital Storage Scope for PC 32MHz Sampling Rate

Three programs are available from the supplied MS DOS program: Oscilloscope with True RMS readout, FFT Spectrum Analyzer (up to 16MHz), and Transient Signal Recorder.
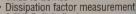
- Two channels with sampling frequency of 32MHz
- Maximum input voltage: 100VAC/100VDC
- Input impedance: 1MΩ @ 30pF
- Input coupling: AC, DC, and ground
- System requirements: IBM or compatible PC with 386 microprocessor or better, 460Kb available memory, VGA display card, and mouse
- Requires 12VDC transformer P/N 129331 (pg 62)
- Includes: 3.5" software, 25-pin male to female ribbon cable (parallel port) and manual • Weight: 2.8 lbs.
- Size: 8.8"W x 6.9"D x 1.8"H • One-year warranty

Part No.	Description	1-4	5-9
139678	PC digital storage scope	$299.95	$269.95
141196	Scope-It for Windows®	59.95	53.95

JAMECO Digital LCR Meter

- Measures inductance: 0.1µH to 200H
- Measures capacitance: 0.1pf to 2000µf
- Measures resistance: 1mΩ to 20MΩ
- Dissipation factor measurement
- 0.5"/3.5-digit display
- Includes test-leads and battery
- Size: 6.7"L x 3.3"W x 1.4"D
- Weight: 1.1 lbs.
- One-year warranty

Part No.	Description	1-4	5-9
127538	LCR meter	$139.95	$125.95

METEX® 3½-Digit Digital Multimeter
.5" High Digits • LCD Readout

- 3½-digit LCD (.5" high digits)
- AC voltage/resolution:
  200mV/100μV, 2V/1mV,
  20V/10mV, 200V/100mV,
  700V/1V
- DC voltage/resolution:
  200mV/100μV, 2V/1mV,
  20V/10mV, 200V/100mV,
  1000V/1V
- AC & DC current/resolution:
  20μA/10nA, 200μA/100nA,
  2mA/1μA, 20mA/10μA,
  200mA/100μA, 2A/1mA,
  20A/10mA
- Resistance/resolution: 200Ω/0.1Ω, 2KΩ/1Ω,
  20KΩ/10Ω, 200KΩ/100Ω, 2MΩ/1KΩ, 20MΩ/10KΩ
- Auto zeroing • Input impedance: 10MΩ
- Overload protection: 1000VAC/VDC
- Includes probes, batteries, carrying case and manual
- See page 95 for compatible leads
  (P/Ns: 77745, 77770, 21856, 21864)
- Size: 3.5"W x 1.3"D x 6.8"H • Weight: 1.2 lbs.
- One-year warranty

Part No.	Product No.	Description	1-4	5-9
27115	M3800	3½-digit	$39.95	$35.95

METEX® 3¾-Digit Multimeter with Computer Interface and Dual Display

- 3¾-digit LCD (.6" high digits)
- Measures AC/DC voltage: AC current (400μA to 20A) DC current (400μA to 20A)
- Computer interface (MT/RS232C) with software and cable
- Measures resistance (400Ω to 40MΩ)
- Autoranging all scale setting
- Measuring for inductance, temp. (°C/°F)
- Measures transistor HFE, frequency, capacitance, and checks diodes
- Includes 9V battery and 3.5" software diskette
- Size: 3.3"W x 1.8"D x 7.2"H
- Weight: 1.9 lbs. • One-year warranty

True RMS

Part No.	Product No.	Description	1-4	5-9
137461	M3860D	3¾-digit	$149.95	$134.95

MASTECH 4½-Digit Multimeter

- Extra large (0.8" high) digits
- AC voltage: 2V to 700V
- DC voltage: 200mV to 1000V
- AC/DC current: 2mA to 10A
- Resistance: 200Ω to 200MΩ
- Frequency: 20kHz
- Capacitance: 2000pf to 20μF
- Measures transistor HFE and continuity
- Hold button • Auto power off
- Includes protective boot, battery, probes and manual
- Size: 8.8"L x 3.9"W x 1.9"H
- Weight: 1.5 lbs. • One-year warranty

Part No.	Product No.	Description	1-4	5-9
136590	MY65	4½-digit	$69.95	$62.95

METEX® Jumbo Digital Multimeter
.7" High Digits • 4½-Digit LCD

- 4½-digit LCD (.7" high digits)
- AC voltage/resolution:
  200mV/10μV, 2V/100μV,
  20V/1mV, 200V/10mV,
  750V/100mV
- DC voltage/resolution:
  200mV/10μV, 2V/100μV,
  20V/1mV, 200V/10mV,
  1000V/100mV
- Resistance/resolution:
  200Ω/0.01Ω, 2KΩ/0.1Ω,
  20KΩ/1Ω, 200KΩ/10Ω,
  2MΩ/100Ω, 20MΩ/1KΩ
- Capacitance/resolution:
  2000pf/0.1pf,
  200nf/10pf, 20μf/1nf
- Frequency/resolution:
  20kHz/1Hz, 200kHz/10Hz
- Computer interface (RS232C) with software (5.25") and cable
- Data hold switch • One-year warranty
- Size: 3.3"W x 1.8"D x 7.2"H • Weight: 1.7 lbs.

Part No.	Product No.	Description	1-4	5-9
106534	M4650CR	4½-digit	$139.95	$125.95

METEX® 3½-Digit Multimeter with Computer Interface and Temperature Measurement

- 3½-digit LCD (.6" high digits)
- Computer interface (RS232C) w/ software (3.5") and cable
- Measures AC/DC voltage: AC current (20μA to 20A), DC current (20μA to 20A)
- Measures resistance (200Ω to 20MΩ), diodes, and continuity
- Autoranging all scale settings
- Temperature measurement probe (-40°C to +1200°C)
- Measures transistor HFE, frequency, and capacitance
- Data hold switch • One-year warranty
- Size: 3.3"W x 1.8"D x 7.2"H • Weight: 1.8 lbs.

Part No.	Product No.	Description	1-4	5-9
117372	M3850D	3½-digit	$119.95	$99.95

LG Precision 3¾-Digit LCD Digital Multimeter

- 3¾-digit (3200 count w/ bar graph)
- DC voltage range: 300mV - 450V
- AC voltage range (50/60Hz): 3V - 450V
- DC current: 300μA - 300mA
- AC current (50/60Hz): 300μA - 300mA
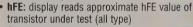- Resistance: 300Ω - 30MΩ
- Auto ranging w/ manual ranging override
- Auto power off, low battery indicator
- Diode and continuity check
- Data hold function • One-year warranty
- Size: 2.5"W x 1.0"D x 4.8"H • Weight: 0.3 lbs.

Super Slim!

Light Weight!

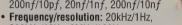| Part No.	Product No.	Description	1-4	5-9
143757	DM733	3¾-digit	SALE	$29.95

METEX® 4½-Digit Multimeter with Computer Interface
.5" High Digits • LCD Readout

NEW

- 4½-digit LCD (.5" high digits)
- AC voltage/resolution:
  200mV/10μV, 2V/100μV,
  20V/1mV, 200V/10mV,
  750V/100mV
- DC voltage/resolution:
  200mV/10μV, 2V/100μV,
  20V/1mV, 200V/10mV,
  1000V/100mV
- AC & DC current/resolution:
  2mA/100nA, 20mA/1μA,
  200mA/10μA, 20A/1mA
- Diode/continuity:
  measures forward resistance
  of a semiconductor junction
  in KΩ a test current of
  approximately 30Ω
- hFE: display reads approximate hFE value of transistor under test (all type)
- Capacitance/resolution: 20nf/1pf,
  200nf/10pf, 20nf/1nf, 200nf/10nf
- Frequency/resolution: 20kHz/1Hz,
  200kHz/10Hz, 2MHz/100Hz
- Includes software, test leads, PC interface and manual
- Size: 3.3"W x 1.5"D x 7.5"H • Weight: 2.0 lbs.
- LCD size: 2.4"W x 1.3"H • One-year warranty

Part No.	Product No.	Description	1-4	5-9
144872	M4640A	4½-digit	$169.95	$152.95

BelMERIT 3½-Digit Multimeter
TTL and CMOS logic testing capabilities

- Large .71" LCD display
- 12 function with 44 ranges
- Automatic power off
- Data and peak hold
- Transistor HFE for NPN and PNP
- DC/AC current to 10A fuse protected
- AC voltage: 200m, 2, 20, 200, 750V
- DC voltage: 200m, 2, 20, 200, 1000V
- AC/DC current: 200μ, 2m, 20m, 200m, 2, 10A
- Capacitance: 2n, 20n, 200n, 2μ, 20μ
- Frequency: 2K, 20K, 200K, 2M, 20MHz
- Resistance: 200, 2K, 200K, 2M, 20M, 2000MΩ
- Size: 3.9"W x 2.3"D x 8.0"H • Weight: 1.5 lbs.
- Three-year manufacturer's warranty

Part No.	Product No.	Description	Price
140273	DX451	3½-digit	$89.95

BelMERIT 3½-Digit Multimeter

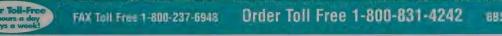- Large 3½-digit liquid display (LCD) readout with function and range annunciators, .25% basic accuracy
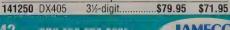- DC/AC current range: 200μ-10A
- Voltage range: 200mDC-1000VDC, 200mAC-750VAC
- Resistance range: 200Ω-200MΩ
- Capacitance range: 2n-20μf
- Frequency range: 2kHz-20MHz
- Input protection to 500vrms, DC/AC 10A fuse protection
- 10 functions and 39 ranges
- Auto power off
- Data hold function and input warning beeper
- Includes standard 9V battery, test leads, manual and deluxe holster • Weight: 1.5 lbs.
- Size: 3.9"W x 2.3"D x 8.0"H
- Three-year manufacturer's warranty

Part No.	Product No.	Description	1-4	5-9
141250	DX405	3½-digit	$79.95	$71.95

Digital Watt Meter

Make your assortment of test equipment more complete with this handy watt meter.
- Maximum ranges: 6000W
- AC voltage: 750V; AC current: 10A
- DC voltage: 1000V; DC current: 10A
- Low power 3½-digit 0.5" LCD display
- Watt zero adjustment dial • Bipolar operation
- Built in low battery indicator
- Includes test leads and manual
- Requires 9VDC battery (not included)
- Size: 7.0"L x 3.3"W x 1.3"H
- Weight: 1.2 lbs. • One-year warranty

Part No.	Description		Price
134711	Digital watt meter	**SALE**	$149.95

EXTECH Digital Light Meter

With this meter, you can measure the illumination levels in light sensitive areas such as clean rooms, photography labs, security areas and areas requiring OSHA compliance.
- Measures in both Lux and footcandle ranges
- Range: Lux – 0-50,000 Lux (3 ranges); footcandle – 0-5,000 Fc (3 ranges) • 0.5" LCD display
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling
- Operates on 9V battery (included)
- Dimensions: instrument – 6.4"L x 2.8"W x 1.2"H
  sensor probe – 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs. • One-year warranty

Part No.	Description	1-9	10-24
131764	Digital light meter	$119.95	$107.95
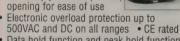
BelMERIT Digital Clamp Meter

- 3½-digit, liquid displays (LCD) with a maximum reading of 1999 and 4000 count LCD screen with annunciators
- Current range: 400A, 600A (AC)
- Voltage range: 750VAC, 400VDC
- Resistance range: 4000Ω
- Tear drop jaws 1.3" (32mm) opening for ease of use
- Electronic overload protection up to 500VAC and DC on all ranges • CE rated
- Data hold function and peak hold function
- Includes standard 9V battery, test leads, manual & case
- Size: 8.0"L x 3.3"W x 1.5"D • Weight: 1.0 lb.
- One-year manufacturer's warranty

Part No.	Description		Price
140644	Digital clamp meter	**SALE**	$89.95

JAMECO Mini DC/AC Current Clamp Meter

- Bright 1/2" LCD display with DATA HOLD
- Complete with test leads, manual and case
- Size: 7.1"L x 1.9"W x 1.4"H
- 9V battery not included
- Weight: 0.9 lbs.
- One-year warranty

Specifications	Range	Accuracy
ACA*	20A, 200A	±1.2% + 5d
DCA	200A	±1.2% + 5d
ACV*	500V	±1% + 2d
DCV	200V	±0.8% + 1d
Resistance	200Ω	±1% + 1d
*Frequency Response		40-400Hz
Zero Adjust	External knob for DCA	

Part No.	Description	1-4	5-9
115756	Clamp meter	$99.95	$89.95

JAMECO Dual Digital Thermometer and Probe

123861:
- Measurement range: -50°C to 1300°C (-58°F to 1999°F)
- Ambient operating range: 0°C to 50°C (32°F to 122°F)
- Resolution: 1°C, 1°F
- Maximum voltage at thermocouple input: 60VDC, 24VAC
- For use with any K-type thermocouple as temperature sensor – recommend P/N 123879
- Size: 5.3"L x 2.8"W x 1.2"H • Weight: 0.6 lbs.
- One-year warranty

123879:
- Type K thermocouple (chrome lead = pos., aluminum lead = neg.) • For use with P/N 123861
- Temp range: -58°F (-50°C) to 392°F (200°C)
- Welded exposed thermocouple 0.03" diameter
- Length: 3' • Weight: 0.02 lbs.

Part No.	Description		Price
123861	Digital thermometer	**SALE**	$69.95
123879	Temperature probe	**SALE**	11.49

Jameco Temperature Probes

- K type thermocouple (chromel+, alumel-)
- Plastic protective carrying bag
- Coiled (5' stretched)
- For use with dual digital thermometer (P/N 123861 – above) • Weight: 0.2 lbs.

144071: Liquid temperature probe
- Range: -50°C to 1000°C (-58°F to 1832°F)
- For temperature measurement of liquid or gels
- Yellow handle and cord

144080: Surface temperature probe
- Range: -50°C to 750°C (-58°F to 1382°F)
- For flat or curved surface measurements
- Black handle and yellow cord

Part No.	Description	1-4	5-9
144071	Liquid temperature probe	$19.95	$17.95
144080	Surface temperature probe	49.95	44.95

Weidmuller ✕ Paladin Tools PC Cable-Check™ Tester

This cable checker is really several testers in one with its ability to check many different types of cables in different applications. It tests standard computer cables for open, shorted and cross-connected wires. These checks provide continuity and wiring configuration. In addition, PC Cable-Check™ tests any combination of D-sub 9-pin (male or female), D-sub 15-pin including HD and male/female, D-sub 25 male and female configurations, Centronics 36-pin printer plus RJ11 and RJ45 telephone plugs. For coaxial needs, the PC Cable-Check™ is capable of checking RG58, RG59 and RG62 BNC connections. On these type systems, network cables can be tested for connections with pass or fail diagnosis clearly shown on LED readout. This handy unit also checks shield continuity.
- Includes battery and manual • One-year warranty
- Size: 9.3"L x 5.5"W x 1.8"H • Weight: 1.7 lbs.

Part No.	Description		Price
123916	PC cable-check™		$149.95

EXTECH 15A AC Line Separator

- X1 and X10 clamp areas
- Size: 6.0"L x 2.1"W x 1.1"H
- 15 amp max.
- One-year warranty

Part No.	Description	Wt. (lbs.)	1-9	10-24
119589	3-prong separator	0.4	$17.95	$15.95

JAMECO 3½-Digit Pocket Multimeter

- Measures: AC/DC voltage, A DC, HFE and resistance
- DC voltage: 200mV, 2V, 20V, 200V, 1000V
- AC voltage: 200V, 750V
- Resistance: 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ
- DC current: 200mA, 2mA, 20mA, 200mA, 10A
- Diode test • Transistor HFE
- Removable test leads • One-year warranty
- Size: 2.6"W x 1.0"D x 4.8"H • Weight: 0.5 lbs.

Part No.	Description	1-9	10-24
119212	Pocket multimeter w/ test.	$17.95	$15.95

Protek 3¾-Digit Multimeter

- RS232C interface
- True RMS mode
- 4000 count, auto-ranging with analog bargraph
- 9999 (10MHz) count frequency counter
- 10 location memory
- Time mode with alarm, clock and stop watch
- MIN., MAX., AVG. and relative mode
- Decibel measurement
- Temperature mode (°C/°F)
- Backlit display
- Capacitance and inductance measurement
- Includes test leads • One-year warranty
- Size: 7.8"L x 3.3"W x 1.5"H • Weight: 2.6 lbs.

Part No.	Description		Price
123721	3¾-digit multimeter		$209.95

EXTECH Digital Sound Level Meter

Designed to meet the sound survey requirements of safety engineers, health and quality control applications as well as sound surveying of homes, sound studios, schools and more.
- A and C weighting with Lo/Hi ranges from 35 to 130dB • 0.5" LCD display
- Accuracy: ±2dB at 94dB sound level
- Slow/fast time weighting
- Maximum hold readings, with decay <1dB/3 min. • Calibration terminal w/ tool
- AC and DC outputs for analysis and recording • Built in electric condenser microphone
- Operates on 9V battery (included)
- Size: 9.5"L x 2.7"W x 1.0"H
- Weight: 1.1 lbs. • One-year warranty

Part No.	Description		Price
131772	Digital sound level meter	**SALE**	$199.95

BelMERIT Capacitance Meter

- 3½-digit, LCD displays up to 1999
- Range: 200pf to 20mf in 9 steps
- Polarity: automatic, positive implied
- Low battery indicator
- Capacitance measurement rate: 2 times per second (nominal)
- Includes 9V battery, test leads, and 0.1A/250V protection fuse
- Size: 6.0"L x 2.8"W x 1.7"H • Weight: 0.6 lbs.

Part No.	Description		Price
140741	LCD capacitance meter	**SALE**	$49.95

JAMECO **$1.39** Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less.
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
99.7% Stock Availability!

Alligator Clip Leads (10)

- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors

Part No.	Description	1-9	10-99	100-249	250+
10444★	Alligator leads...$2.75	$2.49	$2.25	$1.95	

Insulated Alligator Clips (2)

- Color coded
- Jaw opening .375"-0.5"
- Accepts standard banana connector
- Insulated barrel
- Solder strap and pre-drilled hole for 6-32 self threading screw • Size: 2.3"L x 0.5"W
- Includes one red and one black clip
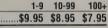
Part No.	Description	1-9	10-99	100-249	250+
70990	Alligator clips......$.49	$.39	$.35	$.29	

Mini-Clip Test Leads (5)

Spring loaded, these mini-clips hook easily to IC pins for testing.
- Set of five: red, blue, green, black and yellow
- 26 AWG to 300V CSA/UL approved wire • 14" length

Part No.	Description	1-9	10-99	100+
135298	Mini test leads $9.95	$8.95	$7.95	

Mini Test Clips (2)

- Sets include one black and one red hooked probe clip
- Material: plastic

114817

Part No.	Description	1-9	10-99	100+
114809	1.75" mini test clips......$1.95	$1.75	$.99	
114817	3.5" mini test clips.........2.25	1.95	1.25	

2" Banana Plugs (2)

- Set screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for additional connection reliability
- Insulating sleeve is threaded to banana plug body
- Includes one red and one black connector
- .1875" lead opening • Size: 2.0"L x 0.4"Dia.

Part No.	Description	1-9	10-99	100+
72194	Banana connectors $1.95	$1.59	$1.29	

2¼" Banana Plugs (2)

- Nine rib spring plug
- Will accept up to 0.1" diameter wire
- Set screw connection
- Each plug equipped with hole for interconnection
- Insulting sleeve fits snugly over copper post
- Includes one red and one black connector
- Size: 2.3"L x 0.3"W

Part No.	Description	1-9	10-99	100+
137525	Banana connectors $2.95	$2.49	$1.95	

Single Binding Posts to BNC male

- Adapts BNC female connector to single binding post/banana plug
- Binding post with captive thumb nut
- Accepts standard banana plugs
- Operating voltage: 500 VRMS
- Brass nickel plated • Size: 1.4"L x 0.6"Dia.

100600

See page 49 for BNC Connectors

Part No.	Description	1-9	10-99	100+
100618	Black binding post.......$1.75	$1.25	$.99	
100600	Red binding post...........1.75	1.25	.99	

Double-Banana Plug to Alligator Clips Test Cable

- Red and black rubber boot
- 4" lead wire
- Length: 3'

VALUE

Part No.	Description	1-9	10-49	50-99	100+
107422	Double-banana plug to alligator clips....$3.95	$3.49	$2.95	$2.49	

Mini Grabber to Banana Test Cables

- Available in black or red
- Plunger type action
- Positive connection that won't disconnect from components

21864

- Banana plug connection on opposite end
- Length: 3.5' • 20 AWG insulated wire

Part No.	Description	1-9	10-99	100+
21856	Black test cable $3.75	$2.95	$2.49	
21864	Red test cable 3.75	2.95	2.49	

BNC Male Test Cable

Permits BNC assembly to be used as a test cable. Upper connection: two alligator clips – red 5.5" 22 AWG wire; black 9" 22 AWG wire. Lower connection: 23" RG/58U cable with male BNC connector (UG260/U).

Part No.	Description	1-9	10-99	100-249	250+
11383★	BNC cable.........$3.49	$2.95	$2.75	$2.49	

BNC Test Cable Assemblies

11421   11463

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video and test equipment.

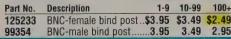| Part No.	Description	1-9	10-49	50-99	100+
11421★	BNC(M) to micro hook RG174 (39"L) ...$3.49	$2.95	$2.65	$2.39	
11463★	BNC(M) to mini hook RG174 (39"L) 3.49	2.95	2.65	2.39	

BNC Standard Double Banana Plugs
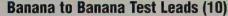
11439   125225

Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC upper connection double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

Part No.	Description	1-9	10-99	100+
11439	BNC banana plug (F) $3.95	$3.49	$2.95	
125225	BNC banana plug (M) 3.95	3.49	2.49	

Double Binding Posts – Dual Banana
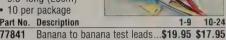
- Red/Black design
- BNC to double binding post

125233

Part No.	Description	1-9	10-99	100+
125233	BNC-female bind post..$3.95	$3.49	$2.49	
99354	BNC-male bind post.......3.95	3.49	2.95	

Banana to Banana Test Leads (10)

- Stackable
- Color coded 2 each (red, yellow, blue, black, white)
- 18 AWG wire
- 9.8" long (25cm)
- 10 per package

Part No.	Description	1-9	10-24
77841	Banana to banana test leads...$19.95	$17.95	

Protected Banana Style Multi-Meter Test Probes (2)

- Threaded/pointed test tip
- Black and red color coded
- 18 AWG wire • 42" long (100cm) • 2 per package

Part No.	Description	1-9	10-24
77737	Protected banana probes..........$5.95	$4.95	

Standard Banana Style Multi-Meter Test Probes (2)

- Black and red color coded
- 18 AWG wire
- 42" long (100cm) • 2 per package

Part No.	Description	1-9	10-24	25-99
77745	Banana probes..............$5.95	$5.25	$4.59	

Stackable Banana Style Multi-Meter Test Probes (2)

- Black and red color coded
- 18 AWG wire
- 42" long (100cm) • Stackable • 2 per package

Part No.	Description	1-9	10-24
77770	Stackable banana probes..........$4.95	$4.49	

Bread Board Pin to Bread Board Pin Test Leads (20)

- Color coded 4 each (red, yellow, blue, black, white)
- 20 AWG wire
- 5.9" long (15cm)
- 20 per package
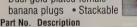
Part No.	Description	1-9	10-24
77825	Breadboard pin leads $11.95	$10.49	

Double Banana Test Leads

- Dual gold plated female banana plugs • Stackable

125217
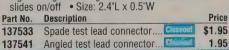
Part No.	Description	1-9	10-99	100+
125209	Blk banana connector...$2.95	$2.49	$1.75	
125217	Red banana connector....2.95	2.49	1.75	

Spade and Angled Test Leads (2)

- Set screw connection will accept up to 0.1" diameter wire
- Hole for banana plug interconnection
- Includes one red and one black test lead
- Weight: 0.03 lbs.

137533

137533: Copper Spade Tip
- Size: 2.3"L x 0.5"W

137541: Copper Angled Tip
- Tight fitting insulating sleeve slides on/off • Size: 2.4"L x 0.5"W

137541

Part No.	Description	Price
137533	Spade test lead connector.... Closeout	$1.95
137541	Angled test lead connector... Closeout	1.95

See page 119 for Caller ID!

Jameco AC On/Off Timer
Deters theft! Turns lights on and off when you're not home!
- One on/off setting
- Input voltage: 125VAC/60Hz
- 10 amp contact rating
- Color: beige • Weight: 0.4 lbs.
- Size: 2.6"W x 1.9"D x 3.8"H
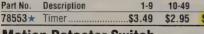
Part No.	Description	1-9	10-49	50-99
78553★	Timer	$3.49	$2.95	$1.95

Motion Detector Switch
- Replaces standard wall switch
- Timer adjustment (5-25 minutes)
- Sensitivity adjustment
- Auto off switch
- Mini spout load: 80W/120V
- Maxi spout load: 1000W/120V
- Size: 5.0"L x 5.0"W x 1.4"H • Weight: 0.9 lbs.
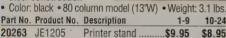
Part No.	Description	1-9	10-24
122892	Motion detector switch	$9.95	$8.95

Jameco Compact Printer Stand
- Printout stacks in document tray automatically
- Document tray folds up in tight working areas
- Durable, safety coated steel construction
- Color: black • 80 column model (13"W) • Weight: 3.1 lbs.

Part No.	Product No.	Description	1-9	10-24
20263	JE1205	Printer stand	$9.95	$8.95

Jameco Six-Outlet Metal Power Strip Surge Protector
- Built-in safety circuit breaker (15 amps)
- Maximum spike current: 4500 amps, 50 joules
- Three-prong, 4' power cord • UL listed
- Color: beige, metal housing
- Size: 12.3"L x 2.4"W x 1.3"H • Weight: 1.7 lbs.

Part No.	Description	1-9	10-24
20175	Power strip	$8.95	$7.95

240W Surround Subwoofer System
Dynamic surround sound provides lifelike audio reproduction. Spectacular omni-directional deep bass performance. Compatible with PC and MAC computer systems, Sega, Genesis, Nintendo, and Playstation game systems, portable and compact stereo systems. Includes sound card connector cable and power adaptor.
- Weight: 11.1 lbs. • One-year warranty

Satellite Speakers
- Power, volume, bass, and surround sound switches
- Amplifier output power: 10W RMS (5W per channel)
- Front headphone and microphone pass-through jacks
- Dimensions: 4.5"W x 5.0"D x 9.8"H

Subwoofer
- Amplifier output power: 10 watts RMS
- Dimensions: 6.5"W x 8.5"D x 10.0"H

Part No.	Description	Price
141399	Surround subwoofer system	SALE $69.95

Word Star Easy Software
Word Processing Software
- PC/XT/AT* and compatibles
- 87,000 word spelling corrector
- Comes on 5.25" diskette
- Pop-up menu • Weight: 0.9 lbs.
- *Please specify if purchasing for a 386 computer*

Part No.	Description	Price
16660	Word Star Easy Software Closeout	$4.95

Slide Dimmer Module
- Single-pole for one switch circuits
- 120VAC @ 75-600 watts incandescent lighting only • Fits single gang wall box
- Full range light control
- RF filter reduces AM radio interference and blocks TV and FM interference
- Includes 2 wire nuts and mounting screws • Weight 0.2 lbs.
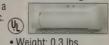
Part No.	Description	1-9	10-49	50-99
133137	Slide dimmer	$2.95	$2.49	$1.75

Portable Fluorescent Mini Light
- Plug in anywhere-perfect as a night light or use on trips, etc.
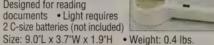- Rated: 120VAC @ 3.5W
- As bright as a 20 watt bulb • Weight: 0.3 lbs.

Part No.	Description	1-9	10-24
132994	Fluorescent light	$4.95	$4.49

Assorted Magnifiers
"Comfort Light" Illuminated Magnifier
- 2X-4X 90mm diameter lens
- Designed for reading documents • Light requires 2 C-size batteries (not included)
- Size: 9.0"L x 3.7"W x 1.9"H • Weight: 0.4 lbs.

Part No.	Description	1-9	10-24
135917	Comfort light magnifier, white	$6.95	$5.95

General Purpose Illuminated Magnifier
- 2X-4X 90mm diameter lens
- For everyday use
- Light requires 4 AA-size batteries (not included)
- Size: 9.0"L x 3.8"W x 0.8"H • Weight: 0.3 lbs.

Part No.	Description	1-9	10-24
135909	Illuminated magnifier, black	$4.95	$4.49

Deluxe Magnifier
- 2X-4X-wide 110mm diameter viewing lens
- Size: 8.4"L x 4.0"W x 0.6"H • Weight: 0.3 lbs.

Part No.	Description	1-9	10-24
135896	Deluxe magnifier, black	$4.95	$4.49

Folding Magnifier with Rule
- 6X-30mm diameter lens
- View and measure with the square measuring grid in inches and mm
- Size: folded – 2.2"L x 1.6"W x 0.5"H unfolded – stands 2.2"H • Weight: 0.1 lbs.

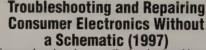| Part No.	Description	Price
135870	Folding magnifier w/ rule, black Closeout	$2.95

Folding Pocket Magnifier
- 3.5X-43mm diameter lens
- Handy, easy to carry – measures 2" square when folded
- Weight: 0.1 lbs.

Part No.	Description	Price
135888	Folding magnifier, black Closeout	$1.95

Troubleshooting and Repairing Consumer Electronics Without a Schematic (1997)
Discover how to solve even the toughest problems without a schematic!
Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages)
- Size: 7.4" x 9.3" • Weight: 1.1 lbs.

Part No.	Description	1-4	5-9
136080	Consumer Electronics	$22.95	$19.95

Cellular Phone Battery Packs
IMPORTANT: Batteries must be fully charged before use!

Motorola
122657
- Made from only the best quality cells • Weight: 0.4 lbs.

Part No.	For Models	Style	Talking Time	Price
122657	PT-500 (flip)	Ni-Cad	80 min	$19.95
122665	PT-500 (flip)	Ni-Cad	120 min	29.95
131174	PT-500/950 (flip)	Ni-MH	120 min	34.95
131182	PT-500/950 (flip)	SlimNi-Cad	70 min	39.95

NEC/Ericsson/Nokia
- Style: Ni-MH (no memory build up like Ni-Cad batteries)
- Weight: 0.4 lbs. 131051 131140 131086 131107

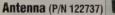| Part No.	For Models	Talk. Time	Price
131051	NEC P100/110/120	150 min	$12.95
131140	Ericsson 237/337	150 min	24.95
131086	Nokia 101/121/128	145 min	29.95
131107	Nokia 232/500	130 min	29.95

Cellular Phone Accessories
Hands-Free Kit (P/N 128848)
For MOTOROLA Flip Phones
Keep both hands free while charging your battery! • Weight: 0.6 lbs.

Black Leather Case (P/N 130972)
For MOTOROLA Flip Phones
- Handy leather case protects your cellular phone • Belt loop • Weight: 0.2 lbs.

Antenna (P/N 122737)
For cellular phones with external antenna option
- Enhances signal clarity and reception! • Weight: 0.7 lbs.
- 14" RG58/U coaxial cable w/ a mini UHF connector

Part No.	Description	Price
128848	H/F kit w/ plug-in charger Closeout	$29.95
130972	Black leather case	9.95
122737	Glass mount 5dB antenna Closeout	7.95

Plug-in Saver Chargers
Motorola/Nokia
- Charge your battery by 122681 plugging the saver into your cigarette lighter and phone
- 6' coiled cord • Color: black

Part No.	For Models	Wt. (lbs.)	Price
122681	PT-500/5200/7200	0.3	$14.95
130981	101/121/128/1000	0.3 Closeout	5.95

Dual Desktop Charger
- Charges Ni-Cad and Ni-MH Motorola and Microtac packs
- Charges two packs or two packs with handset at 450mAh and back slot alone charges at 800mAh
- 120 or 220-240VAC input 120V adapter included
- Includes 12-14VDC connector for use in vehicle
- Weight: 1.7 lbs. • One-year warranty

Part No.	Description	Price
131861	Desktop cellular charger	$39.95

Stereo and Speaker Wall Brackets
- Holds a mid-sized stereo and two speakers
- Must mount on wall stud
- Holds up to 80 lbs.
- Weight: 8.6 lbs.

Part No.	Description	Price
134480	Stereo syst. brackets, black Closeout	$12.95

FOREFRONT POSTPlus Solution Card

Provides real solutions to the problems caused by PC / File Server hardware failures. Three digit display provides solution codes. Because of the on-board processor, it works even if the PC system or other POST code readers will not.

- Identifies boot failures instantly
- Works with any BIOS and can be customized for future BIOS designs
- Reads POST codes from every known IBM compatible system
- First diagnostic board to test PC motherboards as well as ISA and EISA
- Detects problems with power supply, analyzes systems motherboard, CPU, and adapter BUS signals that can cause lock-up
- Includes card, probe and user manual
- Size: 7.0"L x 1.5"W x 9.5"H (package)
- Weight: 1.0 lb. • One-year warranty

Part No.	Description	Price
141356	PostPlus Diagnostic Card..... **SALE**	$349.95

FOREFRONT Discovery Card
Interrupt and DMA troubleshooting card

Diagnostic programs fail to detect actual DMA usage as well as IRQs in use. With this card you eliminate uncertainty, time-consuming delays, and conflicts.

- Use extender board (P/N 28311 – pg 83) for improved view
- Tests with any IBM compatible system and card
- LED indicators display DMA, IRQ and CPU usage
- Complete manual with instructions and explicit standards for operation • Weight: 0.6 lbs.
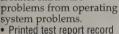
Part No.	Description	Price
126148	The Discovery card .... **SALE**	$179.95

FOREFRONT Troubleshooter Software

The troubleshooter is a self-booting program with its own operating system that bypasses DOS for accurate hardware component testing. Isolates hardware problems from operating system problems.

- Printed test report record
- Comprehensive tests of on-board and peripheral hardware
- PC/XT/AT and compatible computers
- 99+ hours burn-in and soak testing
- Low-level formats IDE drives
- One-year warranty • Weight: 0.9 lbs.

Includes Loop Back Connectors

Part No.	Description	Price
126130	Troubleshooter software ...... **SALE**	$199.95

PC Battery Eliminator

All IBM PC compatibles
- Eliminates clock battery (3-7.2V) on your system
- Maintains SETUP configuration
- Replaces all PC batteries
- Input: 12VDC @ typical 5mA, peak 50mA
- Output: 4-5VDC nom. @ 40µA
- Must be fully charged prior to use
- One-year manufacturer's warranty

See page 58 for other batteries

Part No.	Description	1-4	5-9
11172	Battery eliminator................. **SALE**	$35.95	

microDATA Diagnostic Products

Quicktech Multimedia Diagnostic CD

Test, diagnose, analyze, and fine tune 6 different categories of your multimedia PC. Explore all multimedia functions and detect hidden problems that slow your MPC performance.

Windows 3.x and '95

- System requirements: Windows® 3.x or 95, IBM compatible with 486 or Pentium®, 8MB of RAM, CD ROM, HI-color display, at least 4 MB of disk space and sound card
- Weight: 0.2 lbs.

Part No.	Description	Price
141241	Multimedia Diagnostic CD $69.95

RST RAM Stress Test Diagnostic Software

Self booting base, extended, and cache memory testing utitlity designed for rigorous testing needs.

- Supports 386 thru Pentium Pro®
- Single program diskette provides true portability and ease of use
- 3.5" Diskette
- Weight: 0.3 lbs.

Part No.	Description	Price
141719	RST RAM StressTest Diag. Software	$59.95

QuickPost POST/Diagnostic Card for PCI-Bus Systems

This is the first diagnostic card for monitoring Power-On-Self-Test results in systems using PCI-Bus architecture. During POST test, the system BIOS is constantly monitored as well as the power supply, clock and reset lines.

- Plugs into any PCI I/O slot
- Digital indicators for every POST code error
- LEDs for monitoring power voltages (DC): +12, -12, +5, +3 • LEDs for clock and reset failure
- Comprehensive manual with error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more
- Weight: 0.6 lbs. • One-year warranty

Part No.	Description	Price
135108	PCI-POST diagnostic card $199.95

CyberCircuit Plus Software
CyberCircuit Plus software – 1100 circuits

An extensive reference of electronic circuits, formulas, tables and other information.

- Minimum system requirements: 386SX, Windows® 3.1, 4MB RAM, 4.5 or 6.5MB hard drive space, 3.5" floppy drive • Includes manual
- Search utilities make finding the correct circuit quick and easy • Weight: 0.4 lbs.

Part No.	Description	Price
134691	CyberCircuit Plus, 1100 cir... **SALE**	$69.95

Quicktech Lite Diagnostic Software
Self-booting software for 286, 386, 486 and Pentium® systems

- Verify proper operation and troubleshoot failures of all major PC components: hard drives (MFM, RLL, IDE, SCSI); floppy drives; base, extended and external cache RAM; VGA/EGA/VESA – compliant video cards; keyboard; monitor; printer; and I/O ports
- 48 hour burn-in mode for lengthy testing
- Floppy drive head cleaning function
- Includes loopback testers for DE9 and DB25 serial and DB25 parallel ports, manual and 3.5"/5.25" software disks • Weight: 0.5 lbs.

Part No.	Description	Price
134826	QuickTech Lite Diag. .... **SALE**	$89.95

R.A.C.E.R. II ISA Diagnostic Daughterboard

Repair a system that is up to 95% dead!

- PC/XT/286/386/486/ Pentium® and compatibles, including embedded systems
- Video optional while running; shows every procedure taking place
- Continuously loops to locate intermittent problems
- Fault trees identify IC replacement hierarchy
- Supports EGA and VGA
- On-board BIOS to initialize system when Power-On-Self-Test cannot be completed
- Includes loopback connectors
- Comprehensive manual includes test codes by system
- Weight: 1.4 lbs. • One-year warranty

Part No.	Description	Price
135116	Diagnostic daughterboard...... **SALE**	$449.95

PC Console Extender
Operate your PC from up to 262 ft. away!

- Suitable for SVGA, VGA, and multisync monitor
- Auto power save mode turns off console when computer is off
- Transmission distance: 262 ft. (80 meters)
- Power consumption: AC 9V 300mA (max.)
- Monitor connector: 15-pin HD type female/male
- Mouse connector: 9-pin D-type male/female
- Keyboard connector: 5-pin DIN
- LED: power indicator
- Max. cable lgth: 6.5' (2M) to PC, 262' (80M) to console
- Weight: 1.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
141268	CE-110 console extender	$149.95	$134.95

Accessory Cables
- 6' DBHD 15-pin male/female (monitor), 5-pin DIN male/male (keyboard), DE9-pin male/female (mouse) cable
- 32' DBHD 15-pin male/female (monitor), 5-pin DIN male/male (keyboard), DE9-pin male/female (mouse) cable

Part No.	Description	Weight	1-9	10-24
141284	6' cable	1.6 lbs.	.....$24.95	$22.49
141276	32' cable	4.8 lbs.	.......49.95	44.95

Motherboard for Pentium MMX® 75MHz–233MHz

Intel® VX Chip Set
Supports 3.3 and 3.52V Pentium® CPUs to 233MHz, Cyrix 6x86, 6x86 LP120 to P166+MHz, AMD KPR75 to PR 166MHz.
- Award BIOS
- 128KB x 8 flash ROM (for plug & play BIOS)
- Intel 82430VX PCI set system chipset
- Supports four 72-pin SIMM slots and two 168-pin DIMM slots, upgradeable to 128MB
- Supports FPO, EDO and SDRAM memory
- Four ISA slots (one slot PCI/ISA shared) and four PCI expansion slots (PCI 2.1 compliant)
- Built-in super I/O controller supports FDD, two IDE connectors (4 devices), two high speed 16C550 compatible serial ports, one SPP/EPP/ECP mode bi-directional serial port • One-year warranty
- Size: 10.0"L x 8.8"W • Weight: 2.3 lbs.

140812

Part No.	Description		Price
140812	MB w/o CPU for Pent. MMX®	**SALE**	$169.95
140046	166MHz Pentium MMX® MPU	**SALE**	179.95
140054	200MHz Pentium MMX® MPU	**SALE**	299.95

Jameco "Green Function" Motherboard for Pentium® Processors

- Award BIOS
- Pentium® SIS P54C PCI/ISA system
- Supports Intel Pentium® 75/90/100MHz CPU
- 2MB cache
- Supports 256K/512K/ 1M/2M (0K installed)
- Four ISA and four PCI expansion slots (masters)
- Four 72-pin SIMM sockets support up to 128MB (see pg 16 for SIMMs)
- Manual included • One-year warranty
- Size: 11.3"L x 8.7"W • Weight: 1.7 lbs.

Part No.	Description	1-9	10-99
138704	Pentium® MB w/o CPU	**SALE** $79.95	
125495	100MHz Pentium® MPU	124.95	119.95

Embedded CPU Card for Intel Pentium® Processor

Industry wide compatibility.
- Microprocessor: Intel Pentium® 75/90/100/ 133/166MHz processor (not included – pg 13)

135044

133MHz Pentium® for under $550!

- System memory: 8-128MB, 4 socket for 72-pin SIMM (not included – pg 16)
- Cache size: pipelined burst sync/async cache module slot, up to 512KB • 128KB Award licensed BIOS
- Two RS232 serial ports (16550 compatible includes FIFO)
- One multi-mode parallel port (SPP/EPP/ECP)
- Two PCI IDE ports, up to 4 IDE drives
- Floppy drive interface: up to two 2.88MB drives
- Watchdog timer: 0.5/1/2/4 sec time-out period selectable
- Built-in PC-104 expansion bus connector
- Includes cables, headers and four 1" hex standoffs
- Includes manual • Board size: 13.4"L x 4.9"W
- Weight: 3.2 lbs. • One-year warranty

Part No.	Description		Price
135044	Pentium® embedded motherboard		$399.95
130833	133MHz Pentium® MPU chip		129.95

Jameco 486/586 Motherboard
256KB Cache, 3 PCI/ISA Bus **NEW**
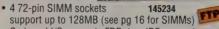
- Award BIOS
- ZIF socket 3
- Supports 3.45/4V/5V CPU
- Supports 25-133MHz CPU from Intel/AMD/Cyrix/TI/ SGS Thompson/IBM
- 256K cache
- 3 ISA/3 PCI slots
- 4 72-pin SIMM sockets support up to 128MB (see pg 16 for SIMMs)

145234

- On board I/O supports FDD, one parallel port (EPP/ECP), two IDE connectors, and two serial ports (16C550) fast COM
- Includes cables and manual • One-year warranty
- Size: 8.6"L x 7.5"W • Weight: 2.0 lbs.

Part No.	Description	1-4	5-9
145234	486SX/DX/DX2/DX4 w/o CPU	$119.95	$109.95
132716	100 MHz Am486DX4 CPU (AMD)	49.95	44.95

Motherboards for Pentium Pro® 150MHz–266MHz

- Award BIOS
- Supports Pentium Pro® 150MHz to 266MHz
- 4 ISA bus and 4 PCI local bus slots
- Cache memory supports: Pentium Pro® CPUs built-in 256KB/512KB L2 cache

139408

- Supports FPM, EDO and burst EDO SIMMs up to 1024MB • Supports ECC/parity functions
- IDE ports support: 2 channel PIO and BUS Master enhanced PCI IDE ports, up to mode 4 timing, and up to 22MB transfer rates
- Supports 2 universal serial bus ports (NS16C550)
- IR port supports: infrared ray functions (both HPSIR and ASKIR) • Supports plug and play BIOS
- Size: 11.5"L x 8.7"W • Weight: 2.4 lbs.
- One-year warranty

Part No.	Description		Price
139408	MB w/o CPU for Pentium Pro®	**SALE**	$299.95
140118	150MHz Pentium Pro® MPU	**SALE**	249.95
140100	200MHz Pentium Pro® MPU	**SALE**	569.95

Processor Protector Card
PGA BUS **NEW**

Confirm safe CPU operating voltages. PROCESSOR PROTECTOR quickly plugs into CPU socket 5 or 7 and reports actual voltages to insure your processor's proper operation.
- Easily identify Vr or Vre CPU voltage levels for socket 5 motherboards
- Quickly identify socket 7 motherboards that support dual voltage MMX CPUs
- Correctly set socket 7 voltage levels for MMX processors
- Works with AMD, IBM, CYRIX and Intel MMX CPUs
- Size: 2.0" x 2.0"W X 0.5"H • Weight: .06 lbs.

Part No.	Description	1-4	5-9
145154	Processor protector card	59.95	$53.95

Micronics 486DX/SX Compatible Motherboard

- Phoenix BIOS
- Supports 486SX-25 or 33MHz, 486SX2-50MHz, 486DX-33MHz, 486DX2-50 or 66MHz, 486DX4-75MHz
- 256KB cache
- Three 72-pin SIMM slots support up to 96MB
- One 8-bit and three 16-bit ISA slots
- 1.44MB, 1.2MB, 720KB and 360KB floppy drive controller • Two VESA local bus slots
- Bi-directional parallel port
- Two serial ports (NS16450)
- Size: 10.0"L x 8.7"W • Weight: 2.1 lbs.

Part No.	Description		Price
139387	486SX/SX2/DX/DX2/DX4 MB	**SALE**	$69.95

Jameco 486DX2-66 "Green" Motherboards
ISA/VESA Local Bus with 256KB Cache RAM

- ZIF socket
- Award BIOS
- Supports CPUs up to 120MHz
- Cache expandable to 512KB
- Supports RAM from 1MB to 128MB with four 30-pin and three 72-pin slots

132353

- Three 16-bit ISA bus slots with 32-bit VESA extensions; five 16-bit ISA bus slots
- Switch for green PC power management
- Fits most Jameco cases (pg 112)
- Size: 9.8"L x 8.8"W • Weight: 1.8 lbs.
- One-year warranty

Part No.	Description		Price
132311	486DX2-66MHz w/o CPU		$139.95
132353	486DX2-66MHz w/ CPU		189.95

Jameco 386DX Compatible Motherboard

- 40MHz
- AMI BIOS
- Supports 256K x 9 (P/N 41515), 1MB x 9 (P/N 41751) and 4MB x 9 (P/N 53701) SIMMS (pg 16)
- Supports Unix, Xenix, Novell, OS/2, and most popular software
- Supports up to 64MB of RAM on-board
- Supports 32/128KB cache RAM (0KB)
- Math coprocessor socket
- Five 16-bit slots and one 8-bit slot
- Fits most Jameco cases (pg 112)
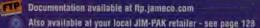- Size: 8.6"L x 6.8"W • Weight: 1.3 lbs.

Part No.	Description		Price
137314	386DX 40MHz w/ CPU	**SALE**	$89.95

JAMECO **$1.39** Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less

FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128

99.7% Stock Availability!

Jameco PC Air Exhaust Fan

- Insert into card slot (non-electrical connection)
- The airduct can be extended and fan assembly reversed
- 12VDC 20 CFM airflow eliminates hot air out of case while increasing flow through
- Fan is CE/TUV/UL/CSA approved
- Weight: 0.4 lbs. • One-year warranty

Part No.	Description	1-4	5-9
124492	PC air exhaust fan .... **SALE**	$17.95	

TOM Fancard II

- Can be installed into any PC slot
- Circulates air within case to keep all components from overheating • CFM: 25
- MTBF: 30,000 hours • CE approved
- Weight: 0.5 lbs. • One-year warranty

VALUE CE

Part No.	Description	1-4	5-9
79020	Fancard II	$19.95	$17.95

ORBITRON Hard Drive Cooler and 3.5" Mounting Brackets

Now you can keep your hard drive cool and not consume valuable space! The "Just Cooler" has two efficient fans mounted on a 5.25" bay front panel which can be used in front of or in the drive bay above your hard drive.

- Two 12VDC @ 70mA fans • Easy access air filter
- Beige vented face plate replaces bezel on a 5.25" bay
- Y adapter for any hard drive • Weight: 0.5 lbs.
- Includes 3.5" mounting kit • One-year warranty

Part No.	Description	1-4	5-9
135925	Hard drive cooler .... **SALE**	$35.95	

High Performance System Cooling Fan

- Fan creates strong air flow to cool off entire system **FTP**
- Rated voltage: 12VDC @ 200mA
- Input power: 1.44W max.
- Operating voltage: 9.6-1.44VDC
- Noise: 27dBA • Fan life: 25,000 hrs.
- Size: 3.4"W x 1.3"D x 3.6"H • Weight: 0.5 lbs.

Part No.	Description	1-9	10-24
138966	System cooling fan	$14.95	$13.49

Jameco PC/XT/AT Compatible 150/200 Watt Power Supplies

Compatible with 20511 and 108978 (see page 112)

- 19465 Output: +5V @ 15A, -5V @ 0.5A, (150 Watt) +12V @ 5.5A, -12V @ 0.5A
- 67467 Output: +5V @ 20A, -5V @ 0.5A, (200 Watt) +12V @ 8A, -12V @ 0.5A
- Input: 110-220VAC @ 47-63Hz (switchable)
- PC/XT/AT compatible connectors • Built-in fan
- Size: 9.5"L x 5.5"W x 4.6"H • One-year warranty
- P/N 67467: UL/CSA approved

Part No.	Product No.	Description	Wt.(lbs.)	1-4	5-9
19465	JE1030	150 watt	4.7	**SALE** $49.95	
67467	JE1030A	200 watt	4.3	59.95	53.95

Jameco AT Compatible 200/250 Watt Power Supplies

Compatible with JE2012, JE2020 (previous models) and 20546 cases (see page 112)
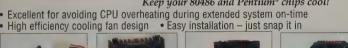
- 19529 Output: +5V @ 22A, -5V @ 0.5A, (200 Watt) +12V @ 6.5A, -12V @ 0.5A
- 132361 Output: +5V @ 25A, -5V @ 0.5A, (250 Watt) +12V @ 10A, -12V @ 0.5A
- Fits in popular mini-vertical and desktop cases
- Input: 110-220VAC @ 50-67Hz (switchable)
- AT compatible connectors • Built-in fan
- UL/CSA approved • Easy to install
- Size: 5.5"L x 5.9"W x 3.4"H • Weight: 3.2 lbs.
- One-year warranty

Part No.	Product No.	Description	1-4	5-9
19529	JE1034	200 watt mini .... **SALE**	$39.95	
132361	JE1033	250 watt mini	59.95	53.95

Jameco Heat Sink/Fans for 80486/Pentium® Processors!

Keep your 80486 and Pentium® chips cool!

- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fan design • Easy installation – just snap it in

67660 118092 130163 132100 144864

Part No.	Description	Wt. (lbs.)	Agency Approvals	1-4	5-9
85497	486 CPU heat sink only	0.05	—	**SALE**	$2.95
67660★	486 and 586 CPU heat sink with fan	0.1	CSA/CE/TUV	7.95	7.15
112379	486 and 586 CPU heat sink with fan and heat pump	0.2	UL/CE/TUV	49.95	44.95
117348	Heat sink w/ fan for Pentium® 60/66	0.2	UL/CSA/TUV	12.95	11.49
118092	Heat sink w/ fan for 686 and Pentium® 75-166	0.2	CSA/CE/TUV	12.95	8.95
130163	Heat sink w/ fan for 686, Pentium® 75-166 & audible alarm if fan fails	0.2	UL/CE/TUV	**SALE**	17.95
132097	Heat sink w/ ball bearing fan for 686 and Pentium® 75-166 – square	0.1	UL/CSA/CE/TUV	14.95	13.49
132100	Heat sink w/ screw on ball bearing fan for 686, Pentium® 75-166 – round	0.2	UL/CSA/CE/TUV	**SALE**	17.95
144864	Heat sink w/ ball bearing fan for Pentium Pro® 150/200 – square	0.3	CE	17.95	15.95
138780	Heat sink w/ fan for Pentium® Pro and audible alarm if fan fails	0.3	UL/CSA/CE/TUV	24.95	22.95

Jameco AT Compatible 200 Watt Power Supply

Compatible with JE2019 case (previous model)

- Output: +5V @ 20A, -5V @ 0.5A, +12V @ 8A, -12V @ 0.5A
- 200 watt power supply
- Input: 110-220VAC @ 47-63Hz (switchable)
- AT compatible connectors • Built-in fan
- UL/CSA approved • Easy to install
- Size: 6.5"L x 5.9"W x 6.0"H • Weight: 4.5 lbs.
- One-year warranty

Part No.	Product No.	Description	1-4	5-9
19545	JE1036	200 watt .... **SALE**	$62.95	

Jameco Vertical AT Compatible 300 Watt Power Supply

Ball Bearing Fan

Compatible with 65648 case (see page 112)

- Output: +5V @ 23A, -5V @ 0.1A, +12V @ 15A, -12V @ 0.5A
- 300 watt power supply
- Fits in popular vertical cases
- Input: 110-220VAC @ 47-63Hz (switchable)
- AT compatible connectors • Built-in fan
- UL/CSA approved • Easy to install
- Size: 8.3"L x 6.0"W x 5.9"H • Weight: 6.9 lbs.
- One-year warranty

Part No.	Product No.	Description	1-4	5-9
65728	JE1039A	300 watt .... **SALE**	$89.95	

Jameco AT Compatible 300 Watt Power Supply with 3.3V Regulator

- Output: +5V @ 16-30A, -5V @ 1A, +12V @ 10A, -12V @ 1A +3.3V @ 7-28A
- 3.3V regulated power connectors to motherboard
- Fits in popular mini-vertical & desktop cases (pg 112)
- Input voltage: 110/220VAC @ 50/60Hz (switchable)
- AT compatible connectors • Built-in fan
- UL/CSA/TUV approved • One-year warranty
- Size: 5.5"L x 5.9"W x 3.4"H • Weight: 4.7 lbs.

Part No.	Description	1-4	5-9
132185	300W supply w/ regulator	$139.95	$125.95

Leading EDGE Fortiva 3000 486DX2-66 Slim Desktop Computer

Monitor not included

- Slim line case measures 13.5"W x 16.3"D x 4.0"H
- 486DX2-66 motherboard
- IDE controller
- One 5.25", half height accessible bay
- PS/2 connectors for keyboard and mouse
- 4MB RAM, expandable to 48MB (four 30-pin slots and one 72-pin slot)
- 8KB internal cache
- 1.44MB floppy disk drive
- External cache RAM will allow 64, 128 and 256KB
- SVGA on-board monitor port – standard VESA 32-bit LB video interface with 1MB RAM, expandable to 2MB using two ZIP video RAM sockets
- Supports 1280 x 1024 and 16.7 million colors
- 80 watt power supply (115 or 230VAC)
- Two serial ports (16450) and one parallel port
- Vertical riser with 3 ISA 8 or 16-bit expansion slots
- 101-key keyboard • Weight: 23.4 lbs.

66MHz 486, 4MB RAM, ONLY $199.95

486SLC-66 Multimedia System

Monitor not included

Outstanding price/performance value configuration for business or personal use. Everything you need to enter the world of multimedia including CD-ROM, stereo speakers, sound card and software. Upgradeable to meet your needs. Easy to setup! All software pre-installed.

66MHz 486, 4MB RAM, 420MB Hard Drive, CD-ROM, Speakers ONLY $499.95

System includes:

- 486SLC-66MHz motherboard
- 4MB RAM
- 420MB hard disk drive
- 16K internal/64K external cache
- 1.44MB 3.5" floppy disk drive
- Sound card and speakers
- 101-key keyboard
- MS Windows® for Workgroups
- MS Works™
- Weight: 36.1 lbs.
- Mini-tower case
- 512KB SVGA
- 2X CD-ROM
- 2-button mouse
- MS DOS™
- Computer Care Kit

Part No.	Description	Price
140468	486DX2-66 desktop computer .... SALE	$199.95

Part No.	Description	Price
132281	486SLC multimedia computer system (limited offer)............	$499.95

Power Leap Upgrade Adapter for 486SX/DX/DX2 to 586-100/120/133

Protect your initial investment while giving your system new life! The power leap upgrade adapter installs in just minutes and allows you to install a 586 CPU into the adapter.

- Supports 5V 486 motherboards
- 586-XXX chip not included
- Supports AMD-X5-133 or Cyrix 5x86-100/120/133 CPUs with 16K write-back cache – BIOS written before 1995 will only work with AMD CPU
- 133/120/100MHz core speeds with 33/40/50MHz bus options; fits in PGA/ZIF or Overdrive/487SX sockets
- Fully compatible with Windows® 95 and OS/2 Warp
- Includes chip removal tool, manual and 3.5" utility/test disk
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
131941	Upgrd. adapter for 586 CPU...	$49.95	$44.95

486DX4 CPU Upgrade Adapter

The 486DX4 converts the normal +5V output into +3.45V for driving high end 486DX4 CPUs faster and more efficiently.

- Upgrade to 486DX4 75/100MHz
- Overcurrent protection
- Directly mountable on PGA or PGA ZIF sockets, no motherboard modifications necessary
- Switching converter supplies stable power at 1.5A, while generating little heat
- Size: 1.9"L x 1.9"W x 0.3"H • Weight: 0.1 lbs.
- CPU not included • One-year warranty

Part No.	Description	1-4	5-9
127968	CPU (486DX4) adapter.......... SALE	$39.95	

Power Leap Upgrade Adapter for Pentium® 60/66

Upgrade to Pentium® 90/120/150 or 100/133/166

The Power Leap 54C installs directly into your existing CPU and runs up to 2.5 times faster!

- Upgrades a 60MHz CPU to 90/120/150 and a 66MHz CPU to 100/133/166 (3.3V Intel® Pentium® CPUs)
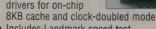- Quick, easy installation without drivers
- 64-bit internal and external processing
- Operating voltage: 3.45VDC
- Compatible with Windows® 95 and OS/2 Warp
- 273-pin PGA socket extender • CPU not included
- Includes speed test utility disk (3.5"), and manual
- Weight: 1.3 lbs. • One-year warranty

Part No.	Description	1-4	5-9
136039	Upgrade for Pentium® 60/66..	$89.95	$80.95

386DX to 486-66 Upgrade CPU

Upgrade from 386DX-16/20/25/33 to 486-66

- Includes 486SXL2-66 upgrade CPU!
- A money saving way to give new life to your older system
- Supports a 80387DX math coprocessor on motherboard
- Includes software drivers for on-chip 8KB cache and clock-doubled mode
- Includes Landmark speed test
- Includes manual and chip extractor
- Weight: 0.6 lbs.

Part No.	Description	1-4	5-9
132960	386 CPU converter .... SALE	$79.95	

Power Leap Upgrade Adapter for Pentium MMX® 75-200MHz NEW

PowerLeap™ PL-Pro/MMX upgrade board allows Pentium® Socket 7 systems to take advantage of the latest MMX CPU technology from Intel, AMD and Cyrix. The CPU upgrade board employs patent pending technology to adapt socket 7 systems to the voltage and pinout requirements of this new generation of processors. It provides an upgrade solution that would otherwise require the replacement of the motherboard.

- Includes PowerLeap™ utility diskette (including the Landmark System Speed Test), CPU cooling fan w/ heat sink, power connector cords, PowerLeap™ PL-Pro/MMX upgrade board and manual
- Compatible with Pentium® motherboard w/ socket 7
- MMX technology is compatible with wide range of existing operating systems including MS-DOS, Windows®, OS/2 and UNIX • One-year warranty
- Size: 2.9"L x 2.1"W x 1.5"H • Weight: 0.7 lbs.

Part No.	Description	1-4	5-9
145285	Upgrade for Pentium MMX® ..	$79.95	$71.95

Thermal / Time Fan Control Sensor (for 12VDC Fan) FTP

- Conserve power by controlling your PC fan operation by temperature or time
- Fits into 5.25" bay
- 1.75"W x 1.0"H digital display
- Operates on CR2032 3V battery • One-year warranty
- Requires 12VDC for fan (3.5" drive connector)
- Size: 5.9"W x 2.4"D x 1.8"H • Weight: 0.4 lbs.

Part No.	Description	1-4	5-9
141612	Thermal/time fan sensor......	$79.95	$71.95

JAMECO $1.39 Sale price good at this quantity only SALE Sale price to the right of banner good for that quantity, or less

FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128

99.7% Stock Availability!

Laser Diodes

Pin Connection:
1. Laser Diode Cathode
2. Laser Diode Anode
   Photodiode Cathode
3. Photodiode Anode

FTP

- Optical output power: Po = 5mW
- Compatible with P/Ns 126711 and 126244 (right)
- Weight: 0.004 lbs. • One-year warranty

139416: 808nm infrared laser diode

Class IIIa Laser Product

- Operation case temp.:
  Tc = -10°C to +40°C
- Lasing wavelength: λp = 808nm

125284: 660nm laser diode

- Operation case temp.:
  Tc = -10°C to +50°C
- Lasing wavelength: λp = 660nm

125284

Part No.	Description	1-9	10-24	25-49
139416	808nm laser diode	$39.95	$35.95	$32.95
125284	660nm laser diode	19.95	17.95	15.95

Laser Diode Module

Class IIIa Laser Product

- Operates on 3VDC @ <5mW
- 670nm wavelength
- Beam diameter: 3.2mm
- Working distance: over
  50 meters/yards (daylight),
  200 meters/yards (dark)
- Size: 0.8"L x 0.4"Dia.
- Weight: 0.02 lbs.
- One-year warranty

DANGER

Part No.	Description	1-4	5-9
131203	Laser module, brass	$49.95	$44.95

Jameco Laser Pointer

Class IIIa Laser Product

- Light weight
- Includes case
  and batteries
- Output power: <5mW
- Power requirements: 2
  AAA batteries (included)
- Size: 5.0"L x 1.0"W x 0.5"H
- Weight: 0.4 lbs. • One-year warranty

DANGER

Part No.	Description	Price
121136	Laser pointer <5mW	$39.95

Line Laser

Class IIIa Laser Product

143845: Line laser module
- APC power control
- Current stable control
- Focus adjustable
  w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3V-5V
- Female 2.1 mm
  connector center positive
- Size: 3.3"L x 0.9"Dia.
- Weight: 0.2 lbs.
- One-year warranty

← 143845

143853

143853: Laser module mount
Built to hold laser diode on target.
- X-Y tilt, θ movement • Weight: 0.5 lbs.
- Tightening screw for tilt adjustment

DANGER

143837: Module regulated power supply
- Short circuit protection
- Output: 5VDC @ 100mA
- Input voltage: 95-125VAC, or 190-250 VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H • Weight: 0.6 lbs.
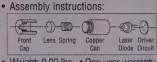
Part No.	Description	1-4	5-9
143845	Line laser diode module	$129.95	$116.95
143853	Laser diode module mount	59.95	53.95
143837	Regulated power supply	14.95	13.49

Laser Diode Accessories

126244: Collimating lens
- Assembly instructions:

Front Cap — Lens Spring — Copper Can — Laser Diode — Driver Circuit

126244

- Weight: 0.02 lbs. • One-year warranty

126711: Laser driver w/ regulator
- Input voltage: 2.6 - 6VDC
- Input current: 40mA
- Weight: 0.004 lbs. • Six-month warranty

FTP

126711

Part No.	Description	1-9	10-24	25-49
126244	Collimating lens	$7.95	$6.95	$5.95
126711	Laser driver	9.95	8.95	6.95

Alpec Laser Pointer Pen

Class IIIa Laser Product

- 200 yard range • 670nm
  red laser • Silver brass
- Power requirements:
  2 AAA batteries (included)
- Size: 5.4"L x 0.4"Dia.
- Weight: 0.1 lbs. • One-year warranty

DANGER

Part No.	Description	1-4	5-9
127749	Laser pointer – pen	$49.95	$44.95

Jameco Laser Pointer Kit

Class IIIa Laser Product

- Light weight
- Easy to assemble
- Power requirements:
  2 AAA batteries (incl.)
- Some soldering required
- Size: 4.5"L x 1.0"W x 0.6"H
- Weight: 0.4 lbs. • One-year warranty

DANGER

Part No.	Description	Price
121339	Laser pointer kit	$34.95

Color *PageScan* Scanner

LOGITECH Produces marvelous
color images and
includes everything
for installation to scan in
Windows® 3.1
to Windows® 95.

FTP

- System requirements: 386 compatible
  Intel processor (or higher), 3.5" floppy drive,
  20MB hard disk space, 8MB RAM, 8MB swap
  space, VGA monitor and graphics card
  (256 colors w/ 640 x 480 pixels or higher)
- Power supply has 6' AC cord and 6' adapter cord
- Scan 24-bit color, gray scale or line art images
- Detach scanner head from base for scanning large items
- Includes parallel port adapter, manuals and software
- Size: 13.0"L x 4.5"W x 4.8"H • Weight: 8.4 lbs.

Part No.	Description	Price
138405	Paper feed color scanner	**SALE** $149.95

Mustek 24-Bit Single Pass Flatbed Color Scanner

NEW

Optical resolution of
300 x 600 dpi which
can be enhanced with
hardware to 600 x 600
dpi and with software to
a maximum of 4800 dpi.

146798

- Minimum system requirements: 386 PC, 4MB RAM,
  DOS 3.3, Windows® 3.1 (Windows® 95 compatible)
- Full Twain compliance for direct scanning
  into supported applications
- Wordlinx OCR allows you to scan and recognize text
  with any Windows® based word processing package
- Includes image editing software and drivers for Win
- Maximum document size: 8.5" x 11.7"
- Standard parallel port • One-year warranty
- Size: 16.0"L x 11.5"W x 3.4"H • Weight: 15.8 lbs.

FTP

Part No.	Description	Price
146798	TwainScan 600 III EP plus	**SALE** $159.95
134455	Paragon 600 IISP (SCSI)	**Closeout** 189.95

3-Element Glass Lens Laser Module

This lens design uses
3-element glass to collect
almost all the power from
the laser diode resulting in
a brighter spot than many
typical laser applications.

Class IIIa Laser Product

DANGER

FTP

- Operating voltage: 4.0-6.0VDC (5VDC typical)
- Wavelength: 660nm • Maximum output: 4mW
- Beam size at 7m: oval – 5mm x 8mm
- Beam divergence: 0.2mrad • Green LED indicator
- Adjustable focus and output power • Weight: 0.1 lbs.
- Module size: 2.0"L x 0.5"W • One-year warranty

Part No.	Description	Price
133292	3-element glass laser	**SALE** $49.95

Beam Expander Lenses

For use w/laser module 133292 (above)

- Adjustable focus range: 50 cm to ∞
- Maximum entrance aperture
  diameter: 4mm
- 2 element glass lens optics
- Screws onto module (P/N 133292 - above) easily
- Weight: 0.03 lbs. • One-year warranty

133305

133305: 2X expander
- Divergence: <0.25mrad • Size: 1.0"L x 0.7" Dia.

145613: 10X expander
- Divergence: <0.05mrad • Size: 1.5"L x 0.7" Dia.

Part No.	Description	1-4	5-9
133305	2X Beam expander lens	$29.95	$26.95
145621	10X Beam expander lens	24.95	22.49

Line Generating Lenses

For use w/laser module 133292 (above)

- Adjustable focus range:
  50 cm to ∞
- Focal length: 8.0 mm
- Back focal length: 1.5 mm
- Beam divergence: 2.0 mrad
- Lens construction: 3E.3G (glass)
- Screws onto module (P/N 133292 – above) easily
- Weight: 0.01 lbs. • Six-month warranty

134148

134148: 60° line generator
- Fan angle: 60° • Length at 1 m distance: 1.70 m

145613: 4° line generator
- Fan angle: 4° • Length at 1 m distance: 0.07 m

Part No.	Description	1-4	5-9
134148	60° Line generator lens	$19.95	$17.95
145613	4° Line generator lens	14.95	13.49

Jameco Infrared Laser Pointer

Applications include optical
cards and sensors, audio and
communications systems.

- Compatible with infrared
  detector P/N 120221 (pg 31)
- 808nm @ <5mW
- Requires (3) #357 type, 1.5V silver oxide batteries
  (not included) • Operating voltage: 3V
- Button switch pad with Velcro patch • Weight: 0.7 lbs.
- Size: 2.0"L x 0.8"Dia. • One-year warranty

Part No.	Description	Price
133532	Infrared laser pointer	$49.95

Relisys 400 dpi Hand Scanner

- Color depth: 256 shade
  gray scale
- Requires one open
  DMA channel, 1MB RAM
- PC/XT/AT, PS/2 model 25
  and 30 or compatibles
- 100, 200, 300, 400 dpi
  (selectable) • Brightness, text/halftone selectors
- PhotoStudio software (3.5") requires Windows®
- Includes 8-bit interface card, driver 3.5" diskette and
  manual • Weight: 1.4 lbs. • One-year warranty

FTP

Part No.	Description	Price
132126	256 gray shade scanner	**Closeout** $29.95

QTRONIX® Win '95 101-Key Keyboard with Jumbo Trackball

Unique "Jumbo" Trackball

- PC/AT compatible • "N-Key" roll-over for quick typists
- Adjustable tilt mechanism • Tactile click sound and feel
- Requires DOS 3.0 or higher • One-year warranty
- Menu driven software driver included
- Size: 19.0"L x 6.8"W x 1.4"H • Weight: 3.7 lbs.

FTP

Part No.	Description	1-4	5-9
128717	Win '95 w/ jumbo trackball ...... **SALE**		$89.95

Jameco 101-Key Trackball Keyboard

- PC/XT/AT and PS/2 (using P/N 28003 – pg 127) compatible • 101-key enhanced layout with 12 function keys and trackball **FTP**
- Trackball features: opto-mechanical trackball technology; state-of-the-art microswitches for reliability and feel; 20-6400 dpi variable resolution; pop-up menu software for easy use in programs such as Lotus 123, WordPerfect, DBase, etc.
- Microsoft® compatible driver on a 5.25" diskette
- Size: 19.0"L x 7.5"W x 1.0"H • Weight: 2.7 lbs.

Part No.	Description	Price
119044	101-key trackball keyboard **Closeout**	$39.95

Win '95 104-Key Keyboard with Trackball and Palm Rest

- Ergonomic design with center placed trackball
- Removable palm rest • Conventional key feel
- Dual connectors: keyboard 5-pin DIN, and trackball 9-pin serial connection on one coiled cable
- Palm rest extends 3" at furthest point
- Size: 18.5"L x 7.0"W x 1.8"H • Weight: 3.8 lbs.
- One-year warranty

FTP

Part No.	Description	1-4	5-9
133760	Win '95 trackball keyboard ..	$49.95	$44.95

ACECAD Graphics Tablet

- For use with PC/XT/AT and compatibles with MS DOS, Microsoft® Windows® 3.x, Pen DOS and Pen Point operating systems
- Dual transducer ports
- Spacious 12" x 12" active area **FTP**
- MM1201 and Microgrid UIOF emulation
- ACAD templates and dust cover included
- Includes 4-button puck, 2-button pen, WINTAB, ADI and MS Mouse Drivers • 2540 LPI resolution
- Easy Auto-Driver installation utility • Weight: 8.2 lbs.
- Size: 16.0"L x 15.6"W x 1.0"H • Three-year warranty

New with Pen and Puck!

Part No.	Description	Price
120117	12" x 12" digitizer tablet	$249.95

Jameco 101-Key Membrane Keyboard

- AT/386/486/Pentium® and compatibles **NEW**
- Led indicators for Num Lock, Caps Lock, and Scroll Lock • Membrane switch
- 12 function keys w/ separate cursor & numeric keys
- Size: 18.5"L x 7.0"W x 1.3"H
- Weight: 2.4 lbs. • One-year warranty

Part No.	Description	1-4	5-9
144194	101-key membrane keyboard	$19.95	$17.95

Jameco 84-Key AT Keyboard

- AT/386/486 and compatible computers
- 84-key layout
- Compatible with Jameco keypad P/N 114850 (right)
- Tactile feed back • Size: 12.8"L x 6.6"W x 1.0"H
- Weight: 2.4 lbs. • One-year warranty

Part No.	Description	1-4	5-9
114868	84-key layout AT keyboard	$59.95	$53.95

89-Key Wireless Keyboard

- Wireless device integrated text, pointing, and multimedia functions
- For more complete specifications, see back cover **NEW**

Part No.	Description	1-4	5-9
145605	89-key wireless keyboard	$89.95	$79.95

REVEAL 98-Key Keyboard with Trackball

- PC/XT/AT/ PS/2 or compatibles **FTP**
- Function lock to use arrow keys that are relocated to accommodate trackball • Built-in tilt mechanism
- Slide switch for XT/AT or PS/2 use
- Includes DE9 cable for trackball and keyboard cable with adapter for PS/2
- Includes 3.5" driver and manual • Weight: 4.0 lbs.
- Size: 18.0"L x 7.4"W x 1.2"H

Part No.	Description	Price
131289	98-key trackball keyboard .. **Closeout**	$29.95

Jameco Keyboard Wrist Rest

Reduces typing tension. Helps to prevent Carpal Tunnel Syndrome.
- Weight: 0.2 lbs.
- Color: blue
- Size: 20.0"L x 3.8"W x 0.8"H

Part No.	Description	1-9	10-24	25-49
76718	Keyboard wrist rest	$2.95	$2.49	$1.49

Jameco 18-Key Keypad

- 18-key detachable keypad for 84-key AT keyboard (P/N 114868 – left)
- Tactile feed back
- Weight: 0.8 lbs.
- One-year warranty
- Size: 6.5"L x 4.1"W x 1.3"H

Part No.	Description	Price
114850	18-key keypad for 114868	$29.95

Jameco 22-Key RS232 Keypad

- PC/XT/AT/ PS/2 and compatible computers
- Tactile click-sound and touch
- Auto repeat function
- 2-key rollover
- RS232 DE9 connector
- Includes 3.5" driver diskette and manual
- 9600 bps, data bits: 8, stop bits: 1, start bit: none, no parity **FTP**
- Size: 6.2"L x 4.2"W x 1.3"H • Color: beige
- Weight: 0.8 lbs. • One-year warranty

Part No.	Description	1-4	5-9
129357	22-key RS232 keypad..........	$49.95	$44.95

Jameco 32-Key Keypad

Great for use with laptop computers as well as original PC/XT/AT keyboards

- PC/XT/AT and compatible computers • 32-key layout
- Separate cursor and numeric keys • 12 function keys
- Editing keys include: Escape, Enter, Insert, Delete, Home, End, Page Up, Page Down, Tab, Backspace, Print Screen and Shift **FTP**
- Serial port required for operation (9-pin)
- Includes software on 3.5" disk and user manual
- 1200 bps, data bits: 8, stop bits: 1, start bit: 1, no parity
- Size: 7.6"L x 6.3"W x 1.5"H • Color: beige
- Weight: 1.4 lbs. • One-year warranty

Part No.	Description	1-4	5-9
78271	32-key keypad	$59.95	$53.95

Jameco Keyboard Drawers

20239:
Elevates CPU and CRT 4.0" to alleviate neck tension.
- External size: 22.0"L x 15.5"W x 4.0"H
- Weight: 8.5 lbs.

72881:
Slides underneath desktop for storage.
- External size: 21.5"L x 12.5"W x 1.5"H
- Includes convenient tray for storing pens and other office supplies • Weight: 4.0 lbs.

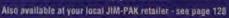| Part No.	Description	1-4	5-9
20239	KB drawer (desktop mounting)	$27.95	$24.95
72881	KB drawer (mounts under desk) **SALE**		17.95

Jameco Mini Vacuum Cleaner

- Requires 4 AA batteries, P/N 32627 (pg 58)
- Includes one bent tube and one straight bristled tube
- Weight: 0.3 lbs.
- Canister size: 1.6"W x 2.3"D x 5.0"H

Part No.	Description	1-9	10-24
72961	Mini vacuum cleaner..............	$9.95	$8.95

ProXellent "ON-SCREEN" 121-Key Programmable Keyboard FTP

- AT/ PS/2 and compatibles • Two sets of 12 function keys
- Save multiple key layouts for different applications
- 28 programmable macro keys
- Repeat rates from 0 to 125 characters per second
- Set key strike validation time from 0.008 to 1.85 sec.
- Operates on Novell compatible – ELS and non-dedicated servers • All key locations remappable
- Size: 20.5"L x 8.0"W x 1.8"H
- Weight: 4.8 lbs. • One-year warranty

Part No.	Description	1-4	5-9
137453	121-key programmable .... SALE	$69.95	

FUJITSU 101-Key Enhanced Keyboard

- PC/XT/AT/386/486 and compatibles
- LED indicators for Num Lock, Caps Lock & Scroll Lock
- 101-key enhanced layout • 12 function keys
- Separate cursor and numeric keys
- Tactile feedback • Includes manual
- Size: 19.0"L x 8.0"W x 1.3"H • Weight: 4.4 lbs.
- Color: beige • One-year warranty

Part No.	Description	1-4	5-9
17128	101-key enhanced	$69.95	$62.95

QTRONIX 101-Key Compact Combo Keyboard

- PS/2 or PC/XT/AT compatible • 12 function keys
- Switch for selecting PC/XT or PS/2 (PS/2 requires an adapter – P/N 28003, pg 127)
- LED indicator for Num Lock, Caps Lock and Scroll Lock • One-year warranty
- Size: 15.8"L x 6.8"W x 1.0"H • Weight: 2.3 lbs.

Part No.	Description	1-4	5-9
133971	Compact keyboard	$29.95	$26.95

Chicony 101-Key Membrane Switch Keyboard

- LED indicators for Num Lock, Caps Lock & Scroll Lock
- 12 function keys with separate cursor and numeric keys
- AT/386/486/Pentium® and compatible computers
- Membrane switch • Two-year warranty
- Size: 18.5"L x 7.0"W x 1.5"H • Weight: 4.0 lbs.

Part No.	Description	Price
123001	101-key membrane switch .... Closeout	$29.95

Jameco 101-Key Enhanced Keyboard

- AT/386/486 compatible • LED indicators for Num Lock, Caps Lock and Scroll Lock
- 12 function keys with separate cursor and numeric keys
- Size: 18.5"L x 7.0"W x 1.3"H • Weight: 3.3 lbs.

Part No.	Description	1-4	5-9
78297	AT/386/486 compatible	$22.95	$19.95

IBM 101-Key PS/2 Keyboard
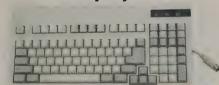
- For PS/2 systems • Tactile feedback
- LED indicators for Num Lock, Caps Lock and Scroll Lock • 12 function keys
- Use P/N 85500 for AT systems (see pg 127)
- Pulled from unused configured systems
- Size: 17.5"L x 6.2"W x 1.0"H • Weight: 2.3 lbs.

Part No.	Description	1-4	5-9
135474	101-key PS/2 keyboard.........	$29.95	$26.95

AXIOM Water Resistant 101-Key Keyboard

- IBM AT, PS/2 compatibles
- 101/102 keys enhanced keyboard
- Membrane contact technology
- Electrical data: 5VDC @ 250mA
- Operating temp.: 0 to 55°C
- Operating humidity: 10% to 95%rh
- 21 removable key cap label covers
- Size: 15.5"L x 7.3"W x 1.8"H
- Weight: 3.2 lbs. • One-year warranty

Great for Industrial Applications!

Part No.	Description	Price
141866	Water resistant keyboard..................	$119.95

Wang 101-Key Enhanced PS/2 Keyboard

- For PS/2 systems • Tactile feedback (solid click)
- LED indicators for Num Lock, Caps Lock and Scroll Lock • 12 function keys
- Manufactured for Wang by IBM
- Includes 10' coiled cable
- Size: 19.3"L x 7.5"W x 1.9"H • Weight: 5.8 lbs.

Part No.	Description	Price
132599	101-key keyboard for PS/2 Closeout	$34.95

Jameco 104-Key Ergonomic Keyboard for Windows® '95

Wide "V" angle conforms to natural position of hands!
- AT and PS/2 compatibles
- PS/2 requires adapter – P/N 28003 (pg 127)
- Built-in wrist rest • Weight: 3.0 lbs.
- Size: 19.6"L x 9.5"W x 1.3"H • One-year warranty

Part No.	Description	1-4	5-9
136661	Win '95 ergonomic keyboard	$29.95	$26.95

QTRONIX Win '95 104-Key Keyboard

- Ergonomic style • For IBM PC/AT or compatibles
- Adjustable tilt mechanism • Detachable wrist rest
- Tactile key stroke-high quality rubber mechanical key switches • Permanently attached 6' cable
- N-key-roll-over • Color: black
- Size: 18.8"L x 7.5"W x 1.0"H
- Weight: 2.9 lbs. • One-year warranty

Part No.	Description	1-4	5-9
135482	Windows® 95 keyboard........... SALE	$19.95	

QTRONIX Win '95 104-Key Keyboard

- Ergonomic style • For IBM PC/AT or compatibles
- Adjustable tilt mechanism
- Tactile key stroke-high quality rubber mechanical key switches
- Permanently attached 6' cable • N-key-roll-over
- Size: 18.5"L x 7.2"W x 1.0"H • Weight: 2.6 lbs.

Part No.	Description	1-4	5-9
128813	Windows® 95 keyboard.........$19.95	$17.95	

REVEAL 101-Key Ergonomic Keyboard

Ergonomically designed in a wide "V" angle to conform to the natural position of hand placement for data entry.
- PC/AT and PS/2 compatible • 101-key enhanced layout
- Size: 21.0"L x 7.6"W x 1.2"H • Weight: 4.6 lbs.

Part No.	Description	Price
132020	Ergonomic keyboard .... Closeout	$19.95

Microsoft® Intellimouse
Microsoft® Office '97 Compatible

Combines the traditional left and right mouse button with a scroll button that makes it easier to zoom and scroll right at your fingertips.
• For complete specifications, see back cover

Part No.	Description	1-4	5-9
145488	3-button serial with scroll	$54.95	$49.95

2-Button Optical Laser Mouse

Uses an optical fiber engine which has non-mechanical precision control. Select mouse mode, sketch mode for 1 to 1 precision, or joystick mode.
• For 486 and Pentium® PCs
• Use with optical mouse pad (included)
• High resolution: 525 dpi • High speed: 1200 mm/s
• Automatic double click function-middle button clicking
• Compatible with Microsoft® mouse and Windows® 95
• 9-pin D-sub connector • One-year warranty
• Includes 6.1"L x 6.9"W pad and manual
• Size: 4.4"L x 2.3"W x 1.4"H • Weight: 0.9 lbs.

Part No.	Description	Price
133284	Laser mouse w/ optical pad	$39.95

2-Button Ergonomic Serial Mouse

• Ergonomically designed to help prevent strain
• Variable resolution 6400 dpi
• PC/XT/AT and compatible
• Microsoft® mouse compatible
• 3.5" installation software included • One-year warranty
• Size: 4.4"L x 2.6"W x 1.6"H • Weight: 0.5 lbs.

Part No.	Description	Price
139117	2-button ergonomic mouse	SALE $14.95

3-Button Ergonomic Mouse

• PC/XT/AT and compatibles
• For 9-pin serial port; 25-pin ports require adapter P/N 10321 (pg 125)
• Middle button locks left or right button
• Serial mouse • 3.5" setup disk
• Size: 4.8"L x 2.5"H x 1.6"W • Weight: 0.5 lbs.

Part No.	Description	1-4	5-9
128733	3-button ergonomic mouse	$12.95	$11.49

3-Button Ergonomic Serial Mouse

• Variable resolution to 6400 dpi
• PC/AT/Microsoft® compatible
• Size: 4.6"L x 2.5"W x 1.5"H
• Weight: 0.5 lbs.

Part No.	Description	Price
139281	Ergonomic mouse	SALE $13.49

Microsoft® 2-Button Mouse

• Serial mouse
• PC/XT/AT/386/486/ PS/2 and compatible computers
• Includes Microsoft® setup diskette and manual
• Includes DE9 connector
• Size: 4.5"L x 2.5"W x 1.4"H
• Weight: 0.6 lbs.

Part No.	Description	Price
111860	2-button serial mouse	$39.95

Genius 3-Button NetMouse

A new innovative way for browsing the Internet, Windows®, and long documents. With the magic button feature you can easily scroll through your Windows® and documents with ease.
• Special control panel included • Weight: 0.5 lbs.
• 2-button Microsoft mouse mode compatible
• Includes Netmouse software, PS/2 pin adapter
• Size: 4.5"L x 2.5"W x 1.5"H • One-year warranty

Part No.	Description	Price
141815	3-button serial with scroll	SALE $26.95

Jameco 3-Button Mouse

• Serial mouse
• PC/XT/AT/ 386/486/ PS/2 (serial port only) and compatibles
• Microsoft® Mouse compatible C E
• Size: 4.3"L x 2.3"W x 1.2"H
• Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-9	10-24	25-49
104441	Serial mouse	$10.95	$9.95	$8.95

3-Button Cordless Mouse

• PC/XT/AT or PS/2 and compatibles
• Switch selectable for Microsoft® "MS(2)" and PC-mouse mode "PC(3)" position
• Active up to 9 feet, 160° angles vertically and horizontally
• 8 hours operation with built in sleep mode
• Includes charger stand, cable with PS/2 adapter, 12V power supply, driver software and manual
• Size (in charger): 2.5"W x 2.2"D x 5.5"H
• Weight: 1.6 lbs.

Part No.	Description	1-4	5-9
128725	3-button cordless mouse	$39.95	$35.95

QTRONIX® 4-Button Joystick with View Control

• IBM PC/XT/AT or 100% compatible
• Precise analog design for best accuracy
• Rotary control for extra thrust, 4 fire buttons for easy access, x and y axis trim controls
• 4 way view control for applications that support this feature
• Auto centering with realistic control feedback
• Wide sturdy base for stability and smooth contoured stick for reduced hand fatigue
• Switch selectable for thrustmaster or CH products compatibility
• 5' cable length w/ 15-pin D-sub connector (DA15P)
• Size: 10.0"L x 7.0"W x 9.0"H • Weight: 3.1 lbs.

Part No.	Description	1-4	5-9
141364	4-button joystick	SALE $44.95

Jameco Mouse Pad
San Francisco skyline!

• Smooth-gliding plastic coating on top surface
• Tough non-skid neoprene backing
• Size: 8.7"L x 9.8"W • Weight: 0.1 lbs.

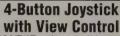| Part No.	Description	1-9	10-24	25-49
26307	Mouse pad	$2.95	$2.49	$1.95

Jameco Trackball with Menu Software

• PC/XT/AT or PS/2 and compatibles
• Over 24 software menus to ease use of Lotus, dBase, WordPerfect and more
• Variable resolution (20-6400 dpi)
• Convenient button lock feature for holding while dragging and drawing • One-year warranty
• Ergonomic design for comfortable feel • 3.5" disk
• Size: 5.5"L x 4.6"W x 2.0"H • Weight: 1.2 lbs.

Part No.	Description	1-4	5-9
128995	PC trackball w/ software	$29.95	$26.95

Jameco PC Trackball

• PC/XT/AT/386/486 and compatibles
• 290 dpi
• Includes mouse driver and DE9 connector
• One-year warranty
• Size: 4.0"L x 5.0"W x 1.1"H • Weight: 0.8 lbs.

Part No.	Description	1-4	5-9
110015	Serial trackball	$22.95	$19.95

4-Button Joystick with View Control

• PC/XT/AT and compatibles
• Four-way view control where applications support this feature
• Smooth contoured stick
• High speed turbo function and rotary throttle control
• Four suction cups for desktop mount
• Size: 5.3"L x 6.5"W x 8.0"H • Weight: 1.2 lbs.

Part No.	Description	1-4	5-9
128768	4-button view joystick	$19.95	$17.95

4-Button Joystick

• Ergonomic design
• PC/XT/AT compatibles
• Four suction cups hold joystick during play
• High speed auto-fire
• 2 positive response fire buttons
• Includes 5' long, 15-pin connector cable • Weight: 0.8 lbs.
• Size: 4.5"L x 4.5"W x 7.0"H

Part No.	Description	Price
127212	4-button joystick	Closeout $4.95

Jameco Dual Port Game Card

• XT/AT/386/486, PS/2 models 25, 30 and compatibles
• Enables two people to play a game at the same time
• Uses standard IBM-type joysticks
• Two game ports • Easy to install
• Weight: 0.2 lbs. • One-year warranty

Part No.	Description	1-9	10-24
105515	Dual port game card	SALE $11.95

Mini Mouse Pad
Perfect cramped work-space solution!

• Smooth-gliding cloth surface on top
• Tough non-skid neoprene backing
• Size: 7.0"L x 5.5"W • Weight: 0.1 lbs.

Part No.	Description	1-9	10-24	25-49
121363	Mini mouse pad	$1.95	$1.75	$1.49

JAMECO $1.39 Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
OEM Pricing Available!

UMAX 3D Accelerator PCI Graphics Card — NEW

Designed for systems using PCI bus architecture, this card incorporates a 192-bit internal bus and triple 64-bit S3 Vision 864 GUI accelerator chips, with their own dedicated display memory.
- High resolution and true color, supports display resolutions from 640x480 to 1600x1200 pixels, with color depths of 8 or 24 bits per pixel
- Color calibration utility • Parallel processing
- Virtual desktop, hardware panning and zooming
- 100% IBM VGA compatible, with full register CGA, Hercules and MDA backwards capability
- Enhanced true color windows drivers
- Includes manual and software • Size: 10.9"L x 4.25"H
- Weight.: 1.2 lbs.

Part No.	Description	1-4	5-9
146131	PCI Accelerator Card	$99.95	$89.95

Multimedia 2D/3D Graphics/Video Accelerator Card
Upgradeable to 4MB

- Drivers support: DOS, Windows® 3.1 through 95, NT, OS/2
- DRAM based 2D/3D graphics and video accelerator
- 64-bit 2D/3D graphics/video chip • Extended graphics mode up to 1600x1200 high resolution
- Upgrade from 2MB to 4MB using (4) 256K x 16, 40-pin, SOJ DRAM chips (P/N 128688 – pg 16)
- Register & BIOS level compatible w/ IBM VGA adapter
- Supports MPEG full motion video playback
- Includes video drivers and game pack • Wt.: 1.0 lb.
- Size: 7.0"L x 3.7"W • One-year warranty

Part No.	Description		Price
140708	PCI bus VGA card	SALE	$79.95

Jameco Monochrome/CGA Graphics Adapter Card

- PC/XT/AT and compatible computers
- Monochrome (MDA); also supports Hercules graphics standards (HGA)
- Compatible with IBM color graphics standard (CGA)
- Text mode: 80 x 25 • Includes manual
- Graphics mode: 720 x 348 • Parallel printer port
- Weight: 0.3 lbs. • One-year warranty

Part No.	Description	1-4	5-9
91230	CGA & mono graphics adapter	$29.95	$26.95

Troubleshooting and Repairing Computer Monitors (1997)

- CRT alignment and degaussing
- State of the art plasma displays
- Specs. and architectures of monochrome, CGA, EGA, and VGA monitors
- Supports both CRT and LCD monitors • 304 pages
- Size: 9.5" x 7.5" • Weight.: 1.5 lbs.

Part No.	Description	1-4	5-9
123764	Troubleshooting Monitors	$29.95	$26.95

Jameco PCI Graphics Card
2MB on Board

- Intel Pentium® or 486 or higher compatible
- MS DOS 5.1 or higher compatible
- VGA, SVGA, multi-sync monitor compatible
- 2MB DRAM standard on board
- 64-bit true color with MPEG drivers
- Connector: 15-pin (DA15) • Output: analog RGB
- Video formats: INDIO 3.2, Cenepak, MS-Video, CD-I playback • One-year warranty
- Includes drivers for Windows® for Workgroups 3.11, NT and 95, and OS/2 • Weight: 0.6 lbs.

Part No.	Description	Price
132441	PCI graphics card	$69.95

Jameco 16-Bit VGA Card
8/16-Bit Bus Autosense

- PC/XT/AT/386 and compatibles
- Supports PS/2 and multi-sync analog monitors
- Emulates VGA, EGA, CGA, MDA and Hercules Graphics modes
- Includes 256KB video RAM expandable to 512KB by adding (2) 514256P-80 chips
- Capable of 640 x 480 with 256 colors, 800 x 600 with 16 colors, 1024 x 768 with 16 colors (512KB RAM required) • 8 or 16-bit bus (autosense)
- Output: DA15 high density
- Extended text display: 80 column text modes in 60 lines, 132 text modes in 25, 43, 60 lines
- Supports 34 video modes including 24 standard and 10 enhanced modes
- Includes manual and software
- Weight: 0.4 lbs. • One-year warranty

Part No.	Product No.	Description		1-4	5-9
67459	VG7700A	VGA card	SALE		$44.95

Jameco 16-Bit Super VGA Card

- PC/XT/AT/286/386, PS/2 Models 25 and 30, and compatibles
- 1024 x 768 resolution in non-interlaced and interlaced modes
- Supports 256 colors in 1280 x 1024 resolution (2MB video RAM required) • Output DA15 (analog)
- Includes 512KB video RAM, expandable to 2MB by adding three P/N 128688 chips (pg 16)
- Supports VESA standard graphics and text modes
- Emulates VGA, EGA, CGA, MDA and Hercules modes
- Includes manual and software
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
104660	Super VGA card	$89.95	$80.95

Jameco 8088 Multi I/O Card for IBM PC/XT

- One game port for IBM compatible joystick (pg 104)
- One serial port with IRQ 3 or 4, Com ports 1, 2, 3
- Real-time clock-calender with replaceable battery backup
- Note: floppy drive controller is not operational
- Monochrome and parallel printer port: Text mode: 80 x 25 and graphics mode: 720 x 348
- Includes driver software for calender, print spooler, cables, brackets and manual • Weight: 1.9 lbs.

Part No.	Description		Price
19887	8088 multi I/O card	SALE	$15.95

Jameco 24-Bit VESA Graphics Accelerator Card

Increases the speed of graphics and windowing programs by up to 15 times that of standard VGA.
- Provides 24-bit true color at 640 x 480 pixels, 16M colors
- On board memory: 1MB. Expandable to 2MB using 256K x 16 DRAM P/N 128688 (pg 16)
- Non-interlaced/interlaced modes supported
- One 15-pin female analog connector
- Weight: 0.7 lbs. • One-year warranty

Part No.	Description	1-4	5-9
137285	Graphics accelerator	$59.95	$53.95

Jameco 64-Bit VESA Graphics Accelerator Cards

- 132935: 1MB expandable to 2MB
- 130913: 2MB only

- Non-interlaced resolution and Zero-Flicker™ refresh rates provide you with exceptional versatility and display clarity
- VESA-compliant 28-pin feature connector for multimedia applications
- Full VESA and VGA selectable modes
- Includes 3.5" disk with display drivers for Windows®, Win95, OS/2 versions 2.1, 2.11, Warp 3.0, as well as a host of other display utilities to enhance your graphics productivity • Includes manual

Part No.	Description	Wt. (lbs.)		Price
132935	Graphics card (1MB)	0.6	Closeout	$49.95
130913	Graphics card (2MB)	1.4	Closeout	99.95

Jameco Monochrome Graphics Adapter Card

- PC/XT/AT and compatibles
- Monochrome (MDA); also supports Hercules graphics standards (HGA)
- Parallel printer port
- Graphics mode: 720 x 348
- Text mode: 80 x 25 • Includes manual
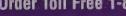- Weight: 0.3 lbs. • One-year warranty

Part No.	Description	1-4	5-9
19684	Monochrome graphics adapter	$17.95	$15.95

Jameco Monochrome Graphics Adapter Card with Software

- PC/XT/AT and compatibles
- Monochrome (MDA); also supports Hercules graphics standards (HGA)
- Graphics mode: 720 x 348
- Text mode: 80 x 25
- Parallel printer port
- Manual and software included • Weight: 0.8 lbs.

Part No.	Description	1-4	5-9
139045	Monochrome adapter w/ software	SALE	$14.95
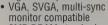
GME Computer Monitor Tester

The model MT830 is an easy to use portable tester that helps you troubleshoot, test, and align computer monitors quickly!
- Test MDA, CGA, EGA, VGA and Super VGA resolution monitors
- Both digital/TTL 9-D and analog 15-HD
- Checks color bars, color raster (white, red, green, blue), dots, crosshatch and windows
- Power with either a 9V battery or an external AC adapter (P/N 134025 – pg 62)
- Size: 5.6"L x 3.7"W x 1.8"H • Weight: 0.6 lbs.
- One-year warranty

Part No.	Description	Price
137761	Computer monitor tester	$139.95

CMM Computer Monitor Tester, Pattern Generator

- Tests CGA, EGA, VGA SVGA and Mac-II monitors
- Provides a gray scale for VGA monitors
- Scan rates up to 64kHz
- Maximum resolution: 1024 x 768 interlaced and non-interlaced modes
- MAC-II sync on green, SVGA has option
- Output level: 7V analog RGB, TTL levels for sync
- Includes MAC-II adapter and AC adapter – 9VDC @ 125mA (9V battery included) • One-year warranty
- Size: 5.5"L x 3.4"W x 1.4"H • Weight: 1.6 lbs.

Part No.	Description	1-4	5-9
134092	Computer monitor tester	$299.95	$269.95

Audio/Video NTSC Monitor Tester

- Up or down keys allow you to select from 9 monitor patterns
- Composite video out: 1V p-p into 75Ω
- Audio out: 1kHz, 1V p-p into 1K
- Scanning lines: 525, 2:1 interlace
- Horizontal frequency: 15,734kHz
- Vertical field frequency: 59.94Hz
- Compliance: RS 170A
- Includes four 1.5V, AA batteries and one 6V @ 200mA wall transformer
- Size: 3.2"W x 1.7"D x 5.8"H • Weight: 1.2 lbs.
- One-year manufacturer's warranty

Part No.	Description	1-4	5-9
140652	Audio/video monitor tester	$299.95	$269.95

Monitor/TV Wall Mount Bracket
For 14" to 18" monitors/TVs

- Double arm
- Assembly required
- Will support up to 60 lbs. • Color: black
- Does not include wall mount screws
- Requires unit base be mounted securely to wall stud
- Weight: 9.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
133840	Monitor/TV wall mount	$39.95	$35.95

SHINHO 15" Multi-Synch Color Monitor

- PC/XT/AT 386, 486, Pentium® and compatibles
- 0.28mm dot pitch
- Power Management System, Plug and Play built-in (connects easily to Windows® '95)
- Resolution: 1280 x 1024 (non-interlaced @ 60Hz)
- Resolution: 1024 x 768 (non-interlaced @ 75Hz)
- UL/CSA/FCC/TUV
- Input voltage: 90 - 264 Volts AC, 60Hz/50Hz
- Includes manual, cable, swivel and tilt base, and detachable power cord • Analog • Weight: 29.0 lbs.
- Size: 14.2"W x 15.8"D x 14.8"H
- Three-year warranty

Part No.	Description	Price
126164	15" Multi-Synch monitor SALE	$279.95

SHINHO 14" Ultra VGA Color Monitor

- PC/XT/AT 386, 486, Pentium® and compatibles
- 0.28mm dot pitch
- Resolution: 1024 x 768 (non-interlaced)
- Input voltage: 100 - 240 Volts AC, 60Hz/50Hz
- Includes manual, cable, swivel and tilt base, and detachable power cord • UL/CSA
- Size: 13.8"W x 12.4"D x 15.1"H • Analog
- Weight.: 22.0 lbs. • Three-year warranty

Part No.	Description	Price
130171	14" Ultra VGA monitor	$219.95

EYE Q 14" VGA Amber Monitor

- PC/XT/AT 386, 486, Pentium® and compatibles
- Tilt/swivel base
- Power requirements: 90-125VAC 35 watts
- Scan frequency: Horizontal: 31.5kHz Vertical: 60Hz, 70Hz
- Includes manual and cable
- Display area: 10"W x 7.75"H
- HDDB 15-pin connector (standard VGA)
- Front panel for brightness and contrast control, power switch • Maximum resolution: 720 x 348
- Back panel for vertical size, focus, H phase, and sub-brightness • One-year warranty
- Size: 12.5"W x 13.0"D x 11.3"H • Weight: 18.2 lbs.

Part No.	Description	1-4	5-9
142017	14" VGA amber monitor	$139.95	$125.95

JAMECO Anti-Glare Screen Filter

- Attaches with velcro and/or double-sided tape (provided)
- Color: double-sided black/gray frame
- Size: 11.6"W x 9.8"H
- Weight.: 0.6 lbs.

Part No.	Description	Price
18518	14" anti-glare screen filter SALE	$5.95

EYE Q 14" White Monitor

- PC/XT/AT 386, 486, Pentium® and compatibles
- Maximum resolution: 720 x 348
- Power requirements: 90-125VAC 35 watts
- Scan frequency: Horizontal: 31.5kHz, Vertical: 60Hz, 70Hz
- Display area: 10"W x 7.75"H
- Front panel for brightness and contrast control, power switch • HDDB 15-pin connector (standard VGA)
- Back panel for vertical size, focus, H phase, and sub-brightness • Tilt/swivel base
- Includes manual and cable • One-year warranty
- Size: 12.5"W x 13.0"D x 11.3"H • Weight: 18.1 lbs.

Part No.	Description	1-4	5-9
142025	14" VGA white monitor	$139.95	$125.95

Hyundai Full Page Monitor

- PC/XT/AT and compatibles
- 15", portrait-oriented, monochrome display
- Works in full page mode with the most popular word processors
- Non-glare screen
- Full page screen drivers for many popular programs
- Works with any IBM-compatible VGA system – no special video controller needed
- Scan frequency: Horizontal: 31.5/35.5kHz Vertical: 56/58/60/62/70Hz
- Resolution: 640 x 350, 720 x 400, 640 x 480, 640 x 550, 640 x 600 • Power: 120VAC
- Size: 11.7"W x 15.0"D x 13.9"H • Weight: 26.0 lbs.

Part No.	Description	Price
127909	Full page monochrome Closeout	$59.95

IBM 12" EGA Paper White Monochrome Monitor

- EGA compatibility
- Input: DE9-pin (TTL)
- Horizontal scan freq.: 15.75 - 21.85kHz
- Maximum resolution: 640 x 350
- Bandwidth: 25MHz
- Plugs into power supply aux. outlet
- Size: 12.9"W x 13.0"D x 12.3"H • Weight: 22.5 lbs.

Part No.	Description	Price
131369	12" EGA paper white monitor Closeout	$49.95

Zenith 12" Green Monochrome Composite Monitor VALUE

- 120VAC @ 0.31A-60Hz
- Picture width control
- Includes male BNC/RCA adapter cable for use with cameras
- Vertical/horizontal/brightness control
- Size: 12.0"W x 12.0"D x 12.0"H • Weight: 20.5 lbs.

Part No.	Description	1-4	5-9
133381	12" green monitor w/ cable	$59.95	$53.95

JAMECO 2400MHz CCD Wireless Audio/Visual Observation System

With the ultra-high frequency transmission of this unit you will get excellent audio and visual clarity in your monitoring applications.

NEW

- 4-channel transmission/receiving modules
- Receiving module automatically receives new signals as new cameras are added, can be adjusted to mute or changing intervals of scanning
- Expandable to 4 cameras • VCR ready for recording
- Frequency: 2400-2481 • Resolution: 380 TV line
- Operating distance: 150M outdoors; 60M indoors
- Dimensions: camera: 4.3"L x 2.3"W x 2.0"H
  receiver: 7.5"L x 5.5"W x 1.3"H
- Includes cables, 2 AC adapters, mounting bracket, manual & case • Weight: 7.0 lbs. • One-year warranty

FTP

Part No.	Description	Price
144881	2400MHz observation sys.	$329.95

1/3" Black and White CCD Camera

- Camera lens is adjustable with rotating housing
- Red LED active indicator
- Auto iris control • 380 line resolution • Composite output
- Electronic shutter
- 0.5 lux with F1.6/1 lux w/ F1.8
- 12VDC @ 500mA power supply included
- 2.1mm female center positive
- Mating connectors: Power: 2.1mm female (P/N 28759 – pg 62) Video: RG59 BNC (P/N 71271 – pg 49)
- Wall mounting bracket included • Weight: 1.3 lbs.
- Size: 2.4"L x 2.2"W x 2.0"H • One-year warranty

Part No.	Description	Price
128792	Enclosed B/W CCD camera.... **SALE**	$149.95

JAMECO Video Transmitter Station

This powerful device transmits from a source location to any number of remote locations through TVs.

FTP

- Transmit/receive: channels 7-13
- Dual color LED function indicators
- Use with a camcorder for stereo audio sound
- Adjustment screws for volume, brightness and signal with test pattern switch
- Removable telescoping antenna included
- Type F connector for cable & larger antennas to increase broadcast range • Includes audio & video cables
- Transmitter dimensions: 5.5"L x 3.5"W x 1.2"H
- Weight: 1.3 lbs. • One-year warranty

Part No.	Description	Price
131828	Video transmitter	**SALE** $39.95

AMPEQ PC Amplifier and Equalizer

- 7 band equalizer allows you to adjust sound to your personal liking: music, bass, treble, and more
- 30 watts per channel
- Connect up to four computer passive or Hi-Fi speakers
- Universally compatible with all sound cards, CD-ROM, Mpeg, and TV tuners
- Includes cables, mounting screws & back panel brackets
- Size: 5.9"L x 3.9"W x 0.9"H • Weight: 0.8 lbs.

Part No.	Description	Price
137584	PC amplifier & equalizer	$49.95

Hand-Free Condenser Microphone

- Cord length: 8'
- 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- Weight: 0.1 lbs.
- One-year warranty

FTP

Part No.	Description	1-9	10-49
135247	Condenser microphone	$5.95	$5.35

COMPRO™ Digital Camera

Provides plug-and-play Windows® 95 compatible high resolution motion and still image capture – in color! Designed to interface through the parallel port of a PC, images captured by the camera are directly transmitted to the PC to be processed with software or stored in industry standard image formats.

- Minimum system requirements: 286 IBM compatible PC or laptop, 4MB RAM, EGA, VGA/SVGA adapter, WIN 3.1, and a 1.44MB floppy disk drive
- No video capturing card needed

FTP

- 256 gray scale and 16.8 million true color fonts
- Includes: camera stand, keyboard connector for PS/2 or NB, parallel port interface unit, driver and manual
- Includes Netscape Navigator Gold 3.0 & D-viewer software
- Up to 640 x 480 resolution • One-year warranty
- Size: 4.3"L x 2.4"W x 1.6"H • Weight: 2.2 lbs.
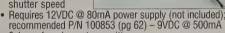
Part No.	Description	Price
134421	Digital camera	$149.95

SHARP Camera Board

FTP

- EIA system 512(H) x 492(V)
- Composite output – 380 lines resolution
- 1/50 to 1/1000 sec. shutter speed
- Requires 12VDC @ 80mA power supply (not included); recommended P/N 100853 (pg 62) – 9VDC @ 500mA
- 2.1mm female center positive
- Mating connectors: Power: 2.1mm female (P/N 28759 – pg 63) Video: RG59 BNC (P/N 71271 – pg 49)
- Size: 1.5"L x 1.5"W x 1.0"H • Weight: 0.1 lbs.

Part No.	Description	1-4	5-9
127263	Camera board	$129.95	$116.95

Color PC Board CCD Camera

- 380 line resolution
- NTSC format (510H x 492V)
- Sensor: Sony 1/3" interline transfer CCD
- S/N ratio: more than 48dB
- Auto electric shutter: 1 to 1/100,000 sec. linear
- Lens: 3.6mm / F2.0 • Focus range: 10mm to infinity
- Video output: 1Vp-p, 75Ω (mating connector BNC type: P/N 135618 – pg 53)
- Automatic gain control • Automatic white balance
- Requires: center positive 12VDC @ 150mA (mating connector: P/N 28767 – pg 63) Recommended: transformer P/N 100095 – pg 62
- Size: mother card: 2.3"L x 1.7"W; analysis card: 2.0"L x 1.7"W; sensor card: 1.7"L x 1.1"W x 1.0"H
- Weight: 0.2 lbs.

Part No.	Description	Price
139571	Color camera board **SALE**	$249.95

Omni-Directional Microphone Headset

- Lightweight/durable construction
- Swivel microphone arm pivot
- Flexible microphone arm
- Weight: 0.3 lbs. • One-year warranty

Part No.	Description	1-4	5-9
132302	Microphone headset	$12.95	$11.49

Desktop Microphones

- Neck length: 17.5"
- Weight:
  130180: 0.3 lbs.
  129963: 0.1 lbs.
- One-year warranty

Part No.	Description	1-9	10-24
130180	Goose neck desktop mic.	$19.95	$17.95
129963	CD-ROM microphone	9.95	8.95

AVer Plus PC to TV Converter Box

- Converts VGA video to standard NTSC or PAL and Macintosh® 640 x 480 to standard NTSC
- Simultaneous monitor display (VGA and TV)
- Built-in flicker filter

FTP

- Resolution: 640 x 480 (NTSC) or 800 x 600 (PAL)
- System requirements: VGA-based PC, DOS 3.0 or higher, 640KB RAM or larger • TV brightness control
- Compatible with Microsoft® Windows® 3.0 and higher
- Package includes: compact PC to Video converter box, transformer, utilities diskette, cables, and instruction manual • Two-year warranty • Color: gray
- Size: 6.0"L x 4.0"W x 1.0"H • Weight: 2.4 lbs.

Part No.	Description	Price
105208	Converter box	$99.95

AVer Plus Sound PC to TV Converter

- Supports all IBM standard video modes & high color modes (256/32K/64K colors) resolution up to 640x480 in NTSC
- Simultaneous graphics display both on VGA monitor and TV

FTP

- UnderScan and OverScan • TV brightness control and color control • Input: VGA D-sub connector
- Output: composite RCA connector, S-Video connector, RGB (15kHz) D-sub connector, VGA (31kHz) D-sub connector
- Microphone or line input, 8/16 bits data format
- Mixing output from microphone/line input, wave format and FM synthesizer • Weight: 3.9 lbs.
- Input/output: parallel 25-pin D-sub connector

Part No.	Description	Price
136186	PC-TV converter **SALE**	$99.95

AVer Computer-To-TV Converter

- Universal version supports IBM (286 or higher model) and any Macintosh® supporting the Mac standard display modes

Reduced Pricing

- Easy plug-and-go features
- Remote control allows adjustment of picture quality, panning, freezing and zoom features
- AV, S-VHS, VGA monitor cables & 12", 14" terminators
- AC adapter • Two-year warranty
- Size: 8.2"L x 4.4"W x 0.8"H • Weight: 3.4 lbs.

Part No.	Description	Price
126800	Computer-to-TV converter.. **Closeout**	$239.95

JAMECO RF Modulators

- Output frequency: NTSC Ch. 3/4, switch selectable

135191: Video RF Modulator
- Operating voltage: 8.0V typical, 13.5V max.
- RF output impedance: 75Ω (RCA type connector)
- Video modulation: 1.0V p-p max.
- Audio FM deviation: 1.5V p-p max.

FTP

- PC connections: solder pin connectors
- Size: 1.3"L x 1.3"W x 0.6"H • Weight: 0.1 lbs.

141639: Audio/Video RF Modulator
- Operating voltage: 12V@ 50mA max.
- RF output impedance: 75Ω (F-type connector)
- Video modulation: 1.0V p-p
- Audio FM deviation: 1.4V p-p
- PC connections: solder tab connectors
- Size: 1.7"L x 1.7"W x 0.7"H • Weight: 0.1 lbs.

Part No.	Description	1-4	10-99	100+
135191	Video RF modulator	$4.95	$3.95	$3.49
141639	Audio/Video RF mod.	4.95	3.95	2.95

108 CD-ROM Drives and Multimedia Kits

See page 127 for CD-ROM Cables! See page 113 for CD-ROM Cases!

Internal CD-ROM Drives

SALE

- 5.25" half-height design
- Include software
- Include audio cable
- One-year warranty

Select a speed to meet your need! FTP

133031

Part No.	Mfg.	Speed	Interface/Type	Buffer	Speed	Weight	Price
131342	Creative	4X	EIDE	——	600KB/sec.	2.5 lbs.	$49.95
133031	Philips	6X	ATA/EIDE	256KB	900KB/sec.	2.5 lbs. Closeout	69.95
140679	IBM	6X	ATA/EIDE	256KB	900KB/sec.	2.2 lbs.	69.95
134244	Mitsumi	8X	ATAPI/EIDE	256KB	1200KB/sec.	2.2 lbs.	89.95
141233	BCD	16X	ATA/EIDE	128KB	2380KB/sec.	2.8 lbs.	99.95

NEC 4X IDE CD-ROM Drive with 4-Disc Changer FTP

With this 4-disc changer you can mix different media types and access a dazzling 600KB/sec.!

- Use with enhanced IDE interface (P/N 127386 – pg 111)
- 600KB/sec. data transfer rate, 150KB audio
- 128KB internal cache buffer
- Selection button for each drive with indicator
- Includes 3.5" driver disk • 5.25" half height design
- Cables not included – recommend P/Ns 72805 and 127546 (pgs 126-127)
- Weight: 2.7 lbs. • One-year warranty

Part No.	Description	Price
133508	4X4-disc CD-ROM drive Closeout	$74.95

DISCTEC Roadrunner External 16X CD-ROM NEW
Parallel port connection

- 486SX or better compatibles
- Compatible with both standard and bi-directional ECP/EPP parallel port protocols
- 2400KB/sec. data transfer rate
- Can daisy chain up to 8 compatible devices plus a printer via pass-through connector
- Power indicator, volume control and headphone jack
- Includes power adapter and parallel cable
- Size: 6.5"L x 10.3"W x 2.4"H
- Weight: 5.7 lbs. • One-year warranty

Part No.	Description	Price
145322	External 16X CD-ROM Closeout	$249.95

4X, 8X and 12X Complete Multimedia Kits

These 4X, 8X and 12X complete multimedia kits deliver lightning speed, with an advanced synthesizer sound card, powerful amplified speakers and software titles – all with Microsoft® 16-bit plug-and-play compatibility!

132062

- Transfer rates: 4X – 600KB/sec., 8X – 1200KB/sec., 12X – 1800KB/sec.
- Minimum system requirements: IBM PC/AT or compatible PC (486 or higher recommended), 2MB RAM (4MB or higher recommended), approximately 4MB of hard disk space, EGA display adapter (VGA or higher recommended), Microsoft® 3.1 or higher (for Windows Applications), DOS 3.3 or higher
- True 16-bit stereo sampling, single plug-and-play chip supports audio, joystick port, game port, FM, MPU401 and MIDI interface, CD-ROM and additional user defined I/O device, OPL4 FTP
- Supports IDE CD-ROM drive interface and built-in CD audio jack • Includes drivers, CD data and audio cables, CD-ROM titles • One-year warranty
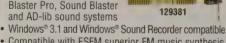
Part No.	Description	Wt. (lbs.)	Price
132062	4X CD-ROM multimedia kit	5.3	$119.95
135511	8X CD-ROM multimedia kit	6.4	149.95
143861	12X CD-ROM multimedia kit	6.4	159.95

Multimedia Speakers and Accessories

See page 53 for unassembled speakers!

JAMECO 8-Bit and 16-Bit Sound Cards FTP

- 386/486/Pentium® and compatibles
- Input: line-in, CD audio, music synthesis and mic
- Joystick/MIDI port connector
- Programmable volume control (16-bit @ 2.3W/CH)
- Compatible with Sound Blaster Pro, Sound Blaster and AD-lib sound systems
- Windows® 3.1 and Windows® Sound Recorder compatible
- Compatible with ESFM superior FM music synthesis
- P/N 134498 has an enhanced IDE interface for CD-ROM • Includes software

129381

Part No.	Description	Weight (lbs.)	1-4	5-9
129381	8-bit sound card	0.4	$29.95	$26.95
134498	16-bit plug & play	0.7	SALE	39.95

ENSONIQ Soundscape 32 Sound Card
With 32-bit resolution wavetable synthesis

- 32 voice capability, 32 note polyphony
- PC/XT/AT and compatibles
- DOS 5.0/Windows® 3.1 and up
- Includes 128 General MIDI instruments, Roland MT-32 sound sets and AdLib/ SoundBlaster emulation
- Software allows you to record and playback MIDI files
- Installation disks including Windows® 95
- Includes manual • Weight: 1.1 lbs. • One-year warranty

Compatible to Sound Blaster "SB AWE32" FTP
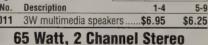
Part No.	Description	Price
135431	Sound card w/ wavetable Closeout	$74.95

3 Watt Digital Speakers

Multimedia speaker system for computers.
- 3 watt, 4Ω non-amplified
- Size: 3.7"W x 2.7"D x 4.5"H
- Weight: 1.1 lbs.

Part No.	Description	1-4	5-9
140011	3W multimedia speakers	$6.95	$6.25

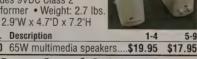### 65 Watt, 2 Channel Stereo Amplified Speakers

- 65W (P.M.P.O.) self amplified per set (2) • Headset jack
- Volume controls
- Includes 9VDC Class 2 transformer • Weight: 2.7 lbs.
- Size: 2.9"W x 4.7"D x 7.2"H

Part No.	Description	1-4	5-9
140020	65W multimedia speakers	$19.95	$17.95

Super Sound Origins 3D+ 16-Bit Stereo Sound Card FTP

- 3D special sound effects
- Requirements: IBM or compatible (AT, 286, 386, 486, Pentium®), 2MB RAM (4MB for Windows® 3.xx, 8MB for Win® 95), VGA or SVGA, 2MB hard disk space
- Synthesizer technology plays up to 20 instruments at once
- Supports ISA plug and play • CD-ROM interface
- MIDI interface/joystick port • Digital/analog mixer
- Software drivers (3.5" disks) included
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
140265	16-bit stereo card	SALE	$39.95

120 Watt Amplified-Multimedia Speaker System

- 120W (P.M.P.O.) self amplified per set (2) • Volume, bass and treble controls
- Frequency response: 50Hz to 20kHz • One-year warranty
- Size: 3.3"W x 4.4"D x 8.6"H
- Weight: 4.2 lbs.

Part No.	Description	1-4	5-9
132134	Ampl. multimedia speakers	SALE	$35.95

10 Watt Micro Multimedia Speakers for 5.25" Bay

- 10 watt built in power amplifier
- Adjustable angle 15 degrees right or left
- Front panel volume control and headphone jack
- Includes mounting bracket and power cable to sound card
- Runs only on PC systems with sound card or MPC (not included) • Weight: 0.7 lbs. • One-year warranty

Part No.	Description	1-4	5-9
132054	Multimedia micro speakers	$29.95	$26.95

240W Surround Subwoofer System

- Amplifier output power: 10W RMS
- Includes sound card, connector cable and power adaptor
- Weight: 11.1 lbs.
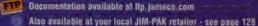- One-year warranty

Satellite Speakers
- Power, volume, bass, and surround sound switches
- Front headphone and microphone pass-through jacks
- Dimensions: 4.5"W x 5.0"D x 9.8"H

Subwoofer • Dimensions: 6.5"W x 8.5"D x 10.0"H

Part No.	Description	Price
141399	Surround subwoofer system SALE	$69.95

IBM 360KB & TEAC 1.2MB 5.25" Internal Floppy Disk Drives

- PC/XT/AT compatible
- Size: 5.8"W x 8.1"D x 1.6"H
- **Teac:** double-sided, high density, gray faceplate
- Weight: 2.2 lbs.
- One-year warranty
- **IBM:** double-sided, double density, beige faceplate • Weight: 2.4 lbs.

Part No.	Product No.	Manufacturer	1-4	5-9
126957	6450207	IBM (360KB)	$39.95	$35.95
17101	FD55G	Teac (1.2MB)	59.95	54.95

TEAC 1.44MB 3.5" Internal Floppy Disk Drive

- PC/XT/AT and compatibles
- Compatible with DOS versions 3.3 or higher
- Compatible with 19617 and 19668 interface cards (see above right)
- Automatically determines if disk is high or low density
- Formatted high density mode
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)
- Weight: 1.3 lbs. • One-year warranty

Part No.	Product No.	Manufacturer	1-4	5-9
115490	FD235	Teac (1.44MB)	$54.95	$49.95

Drive Mounting Kit

- For mounting a 3.5" floppy drive into a 5.25" slot
- Includes beige faceplate (AT gray)
- Compatible with Teac drive (P/N 115490 – above)
- Weight: 0.3 lbs.

Part No.	Description	1-9	10-24
32088	Drive mounting kit	$7.95	$5.95

JAMECO Half-Height Bezel

- Bezel fills the empty space left when mounting half-height disk drives in full height bays • Color: black
- Size: 5.9"W x 0.3"D x 1.7"H • Weight: 0.05 lbs.

Part No.	Product No.	Description	Price
11295	BEZEL	Half-height bezel Closeout	$.99

5.25" to 3.5" Floppy Drive Adapter

- Enables you to use a 5.25" floppy drive data cable with a 3.5" floppy drive
- Connectors: 34-pin card-edge connector; 3.5" drive connector: female 34-pin; 0.1" pin spacing
- Weight: 0.01 lbs.

Part No.	Description	1-9	10-49
100773	Floppy drive adapter	$1.95	$1.25

Jameco IDE CD-ROM Card

The inexpensive solution when upgrading with multimedia!

- Uses popular and unique IRQs and I/O addresses for CD-ROM configuration
- Primary I/O address 1F0, secondary, tertiary and quat. addresses require driver software (not included)
- IRQs: 10, 12, 14, 15 • Includes cable and instructions
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
133188	IDE CD-ROM card	$19.95	$17.95

EPSON & Canon Combination 3.5" and 5.25" Floppy Disk Drives

- 1.44MB 3.5" disk drive and 1.2MB 5.25" disk drive combined in one unit
- PC/XT/AT and compatibles
- Fits in a 5.25" half-height drive bay
- Compatible with DOS version 3.3 or higher
- Automatically determines if disk is high or low density
- Compatible with P/N 19617 and P/N 19668 (right)
- Color (faceplate): beige
- Size: 5.8"W x 8.0"D x 1.1"H • One-year warranty

Part No.	Product No.	Mfg.	Wt. (lbs.)	1-4	5-9
146296	SD800	Epson	2.4	$119.95	$107.95
115810	MD7511	Canon	2.6	SALE	89.95

Panasonic 1.2MB 5.25" & SONY 1.44MB 3.5" Internal Disk Drives

118957 Specifications:
- PC/XT/AT compatible
- 1.2MB, 5.25", double-sided, high-density
- Color (faceplate): beige
- Size: 5.8"W x 8.1"D x 1.6"H
- Weight: 2.3 lbs.

118922 Specifications:
- PC/XT/AT compatible • Color (faceplate): beige
- 1.44MB, 3.5", double-sided, high density
- Size: 4.0"W x 5.9"D x 1.0"H • Weight: 1.4 lbs.

Part No.	Product No.	Manufacturer	1-4	5-9
118957	JU475	Panasonic (1.2MB) Closeout	$39.95	
118922	JU257	Sony (1.44MB)	49.95	44.95

Disk Drive & Computer Cleaning Kits

15430 Includes:
- (1) disk-care diskette & (1) 18 ml. bottle of disk drive head cleaning fluid • Wt.: 0.1 lbs.

134527 Includes:
- 3.5" head cleaning diskette, (1) bottle head cleaning fluid, CD-ROM drive laser lens cleaner, (1) bottle computer/CD cleaning solution
- (20) anti-static wipes, (5) anti-static cleaning pads, (5) reusable swabs, (1) CD cleaning cloth
- Vacuum with accessories, tweezers, zipper case
- Size: 11.5"L x 6.2"W x 1.9"H • Weight: 1.2 lbs.

Part No.	Description	1-9	10-24
15430	3.5" disk drive cleaning kit	$2.95	$1.95
134527	Multimedia cleaning kit	19.95	17.95

JAMECO Disk Drive Mounting Rail

- AT and compatibles
- Includes all necessary mounting hardware
- 8 mounting holes • Weight: 0.04 lbs.

Part No.	Description	1-9	10-49	50+
34323	Mounting rail	$1.95	$1.49	$.99

JAMECO CD-ROM Cables

- 2 x 28 AWG
- Weight: 0.1 lbs.
- P/N 127546 compatible with most CD-ROMs

Part No.	Made For	Length	1-9	10-24
127546	Sony	25"	$4.95	$4.49
136928	Panasonic	20"	4.95	4.49
136936	Mitsumi	20"	4.95	4.49

JAMECO Floppy Disk Drive Controller Cards

- 360KB, 720KB, 1.2MB, 1.44MB
- PC/XT/AT/386 and compatibles
- 19617 allows connection of one or two 360KB, 720KB, 1.2MB or 1.44MB floppy disk drives
- 19668 allows connection of up to four 360KB, 720KB, 1.2MB or 1.44MB floppy disk drives
- Both units include cable for two internal disk drives and manual
- Cannot be used in conjunction with another floppy card
- Weight: 0.8 lbs. • One-year warranty

Part No.	Product No.	Description	1-4	5-9
19617	JE1043	2-drive controller SALE	$24.95	
19668	JE1049	4-drive controller Closeout	29.95	

JAMECO Floppy Disk Drive Controller Card

Controls four floppy drives

- PC/XT and compatibles
- Runs up to four 360KB or 720KB (floppy drive 3 and 4 requires DOS Driver Sys)
- Includes cable for two internal drives
- Complete with manual
- Weight: 0.8 lbs.
- One-year warranty

Part No.	Description	Price
19596	Floppy controller card Closeout	$9.95

3.5" Diskette Storage Box

- Weight: 4.2 lbs.
- One-year warranty

Part No.	Product No.	Capacity	1-9	10-24
132151	AR4569	240	SALE	$17.95

Auto CD Cleaner

The battery operated cleaner will remove fingerprints, dust and static attracting debris in 30 seconds.
- Operates on two AA batteries (not included)
- Size: 7.0"L x 5.0"W x 2.0"H
- Weight: 0.6 lbs. • One-year warranty

Part No.	Description	1-9	10-24
132257	CD-ROM cleaner	SALE	$13.49

CD-ROM Accessories

- 76591: for caddy-mount CD-ROM drives
- 132265: plastic case holds up to 3 CDs
- One-year warranty

Part No.	Description	Weight (lbs.)	1-9	10-24
76591	CD caddy	0.2	$7.95	$6.95
132265	CD jewel case	0.3	1.95	1.49

CONNER Seagate Western Digital
IDE/SCSI Hard Drives
PC/XT/AT and Compatibles

VALUE!

- Requires host IDE/SCSI adapter
- Drives over 528MB require EIDE controller or DrivePro software (P/N 144910 – below)
- TPI (Track Density): 1150

Check out our external mass storage cabinets on page 112!

Part No.	Product No.	Mfg.	Capacity	Description	Weight	Speed	Warranty	Price
119095	ST9144AG	Seagate	120MB	2.5" IDE for portable	0.4 lbs.	14 ms	3 mos. SALE	$109.95
137306	ST9546AG	Seagate	540MB	2.5" IDE for portable	2.0 lbs.	14 ms	3 mos. SALE	189.95
113751	CFS210A	Conner	210MB	3.5" IDE	1.6 lbs.	14 ms	3 mos.	129.95
115764	WD1425A	West. Dig.	426MB	3.5" IDE	1.7 lbs.	12.5 ms	3 mos.	149.95
125701	ST3630A	Seagate	635MB	3.5" IDE	1.1 lbs.	14 ms	3 mos.	159.95
118949	ST3850A	Seagate	850MB	3.5" IDE	1.7 lbs.	14 ms	3 mos.	169.95
124978	ST31275	Seagate	1.27GB	3.5" IDE	1.1 lbs.	14 ms	1 year	179.95
146325	ST31720	Seagate	1.7GB	3.5" IDE (Fast ATA-2)	1.1 lbs.	12 ms	1 year	189.95
146333	ST52520A	Seagate	2.5GB	3.5" IDE (Fast ATA-2)	1.2 lbs.	11 ms	1 year	219.95

Part No.	Product No.	Description	Weight		1-4	5-9
117217	HDMK	3.5" hard drive mounting kit	0.6 lbs.		$9.95	$8.95
122930	HDMK-2	2.5" hard drive mounting kit*	0.2 lbs.	SALE		7.95

* Not compatible with Pentium® motherboards

MICRO HOUSE Hard Disk Technical Guide
This 11th edition includes complete setup specifications and procedures for the industry's most common hard drives and controllers, and how to match them with BIOS drive tables and all corresponding interface types. The bonus CD-ROM includes MicroHouse's EZ-Drive, a 60-second IDE hard drive installation utility plus other handy utilities and demo software.
- Up-to-date coverage on IDE drives
- Enhanced IDE and FAST ATA coverage
- Glossary of terms • Directory of Manufacturers
- Bonus CD-ROM • Weight: 1.4 lbs.

Part No.	Description	1-4	5-9
126308	Hard Disk Guide	$49.95	$44.95

MICRO HOUSE DrivePro Software NEW
Want to install a new hard drive? Edit an existing one? What about protecting your data? Drive Pro lets you do it all with just one integrated program. Fast, reliable and complete program used by professionals to install hard drives, recover data, diagnostics, and data repair.

System Requirements:
MS-DOS / PC-DOS version 3.0 and higher; 286 or better PC ISA compatible system; one or more IDE hard drives; at least 512K of system memory
- Fast and easy set-up gets any size IDE hard drive data-ready in under 60 seconds
- Supports up to four drives in one system
- Technical specifications in most IDE hard drives from 1984 to present
- Formats hard drives 20 times faster than DOS formatting
- EZ-SMART (Self Monitoring Analysis and Reporting Technology) monitors hard drive condition and provides early warning hard drive failure (new feature)
- EZ-COPY allows set-up and cloning of an entire drive
- PARTITION-COPY moves partitions within or across drives (new feature)
- Runs complete drive diagnostics and performance check routines • Includes 3.5" disks
- Size: 9.0"L x 7.0"W x 1.8"H • Weight: 2.5 lbs.

Part No.	Description	1-4	5-9
144910	DrivePro Software	$69.95	$62.95

MICRO HOUSE Technical Library CD-ROM
Tech support at your fingertips! System requirements: MS Windows® 3.1 or OS/2 2.1, 386-SX CPU or better, 4MB of RAM, 2MB available disk space, CD-ROM drive, VGA graphics.
- Encyclopedia of main boards, hard drives and peripheral cards
- Network interface technical guide
- Size: 9.3"L x 8.0"W x 2.0"H • Weight: 1.4 lbs.

NEW '96 Release

Part No.	Description	1-4	5-9
123051	Tech. Library CD-ROM	$329.95	$299.95

MICRO HOUSE ImageCast™ Software NEW
Having a hard time setting up and configuring hard drives? Too time consuming? ImageCast™ is the solution to these problems. With this software you can duplicate complete hard drive setups including operating systems, configuration settings and application suites—to multiple PCs over a LAN in a matter of minutes. Fast, reliable and powerful—it's easier than ever.
- Image file compression with user configurable compression ratios included
- Complete reporting feature
- Can operate in batch mode
- True multi-casting reduces network traffic
- Image management functions lets you schedule image downloads and define groups of clients
- Supports FAT16, FAT32, OSR2 (Win95), NTDS, NetWare and Unix partitions
- System requirements for controller: Windows® 95 (8MB of RAM) or Windows® NT 3.5.1 or higher (16MB of RAM), sufficient hard drive to hold disk images
- System requirements for clients: 386SX-16MHz with 4MB of RAM and floppy drive, active DOS network connection, DOS 5.0 or higher
- Weight: 0.7 lbs.

Part No.	Description	Price
145592	ImageCast™ Software	$99.95

BACKER by Danmere
Back-up your Hard Disk to VHS video tape!
The BACKER internal interface card allows you to backup 1.5GB to a standard video tape through your VCR.
- Transfers data up to 9MB per minute
- Installs on 386 or higher CPU
- Runs with Windows® 3.1, 3.11 or Windows® 95
- Runs in background allowing user access to other Windows® applications
- Includes complete instructions, phono cables, and user friendly software on a 3.5" utility disk
- Weight: 0.6 lbs. • One-year warranty

Part No.	Description	1-4	5-9
137445	HD to VHS back-up system	$69.95	$62.95

Quicktech Lite Diagnostic Software
Self-booting software for 286, 386, 486 and Pentium® systems
- Verify proper operation and troubleshoot failures of all major PC components: hard drives (MFM, RLL, IDE, SCSI); floppy drives; base, extended and external cache RAM; VGA/EGA/VESA – compliant video cards; keyboard; monitor; printer; and I/O ports
- See page 97 for complete specifications

Part No.	Description	Price
134826	QuickTech Lite Diagnostic SALE	$89.95

Jameco SCSI Cables

- For PC/XT/AT and compatibles • All lines connected
- † Also Macintosh® compatibles

Part No.	Description	1-9	10-49
72848	50-pin SCSI socket ribbon cable † (18")	$3.95	$3.49
137550	68-pin SCSI-III internal ribbon cable (27")	22.95	19.95
73162	Male 50-pin SCSI Centr. to male 50-pin SCSI Centr. † (6')	9.95	7.95
118084	Male 50-pin SCSI Centr. to male HPDB50 SCSI-II cable (6')	24.95	22.49
118914	Male HPDB50 SCSI-II to male HPDB50 SCSI-II (3')	19.95	17.95
118076	Male HPDB50 SCSI-II to male HPDB50 SCSI-II (6')	24.95	22.49
137216	Male Centr. mini 68 SCSI-III to male Centr. mini 68 SCSI-III (3')	29.95	26.95
137226	Male HPDB68-pin SCSI-III to male HPDB68-pin SCSI-III (3')	29.95	26.95
137568	Male HPDB68-pin SCSI-III to male HPDB50-pin SCSI-II (3') SALE		35.95
137576	Male HPDB68-pin SCSI-III to male 50-pin Centr. SCSI-I (3')	39.95	35.95

Hot-Swappable Removable Rack
These racks are hot-swappable through the keylock switch. Avoid down time while adding or removing drives! Lock and you power up; there is no power contact until you lock the rack.

See page 113 for complete specs!

Part No.	Description	1-4	5-9
134068	IDE hot swappable rack SALE		$69.95

Jameco Plug & Play PCI-Bus SCSI-II Controller Card

- PCI plug and play
- Powerful advanced setup function
- Scatter/gather operation support
- Synchronous transfer rate up to 10MB/s for fast SCSI
- Asynchronous transfer rate up to 5MB/s
- 50-pin SCSI-II internal and 50-pin SCSI-II external connector
- Includes manual, ribbon cable and software
- Size: 4.8"L x 3.4"W • Weight: 0.7 lbs.

Part No.	Description	Price
138608	PNP PCI SCSI-II contr. card	$89.95

Jameco ISA Fast SCSI-II Controller Card

- Compatible with DOS, Windows®, Windows® NT, UNIX, UNIX Netware
- Supports full complement of SCSI driver software
- 32 byte hardware stack
- 128 byte host data buffer and 8 byte SCSI data buffer
- Synchronous transfer rate up to 10MB/s
- Asynchronous transfer rate up to 5MB/s
- Includes setting sheet, three ribbon cables and software (3.5" disk) • Size: 6.3"L x 4.0"W
- Weight: 1.0 lb. • One-year warranty

Part No.	Description	Price
138616	ISA SCSI-II controller card	SALE $69.95

Jameco ISA Enhanced IDE I/O Controller Card

Supports 4 EIDE and 2 floppy drives

- Compatible with DOS 6.2, Windows® 3.1, Windows® Workgroups 3.11, OS-II 2.X and Netware 3.1X, 4.01
- Intelligent BIOS automatic setup
- 4 hard drives/2 floppy drives • Two parallel ports
- ACC3223 on board chip set with 2 FIFO high speed UART • 2 EPP/ECP bi-directional
- Includes manual and cables • One-year warranty
- Size: 6.5"L x 4.0"W • Weight: 1.1 lbs.

Part No.	Description	1-4	5-9
138624	ISA-EIDE controller card	$79.95	$71.95
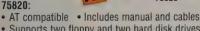
Jameco MFM/RLL Hard Disk Drive Controllers

- Weight: 0.7 lbs.
- One-year warranty (106761 & 75820 only)

106761/112088:
- XT compatible
- Supports two hard disk drives; cables not included

75820:
- AT compatible • Includes manual and cables
- Supports two floppy and two hard disk drives

Part No.	Description	1-4	5-9
112088	RLL 8-bit HD controller	Closeout $4.95	
106761	MFM 8-bit HD controller	Closeout 29.95	
75820	MFM 16-bit HD/FD controller	49.95	44.95

adaptec VESA Bus to Fast SCSI-II Controller Card

- For system with VESA local bus slots
- 32-bit bus master DMA up to 10MB/sec.
- Supports up to seven SCSI devices
- SCSI select BIOS utility eliminates jumper setting
- Advanced SCSI programming interface
- Supports multitasking multithreaded I/O
- Synchronous and asynchronous data transfer
- Scatter/gather, tagged queing and disconnect/reconnect
- Compatible with DOS/Windows®, Windows® NT, OS/2, Netware, SCO UNIXWare
- Recommend internal connector: 50-pin flat cable (P/N 72848, pg 126) – not included
- Recommend external connector: 50-pin HD SCSI-II cable (P/N 118914, pg 126) – not included
- Weight: 0.5 lbs.

Part No.	Description	Price
131924	VLB fast SCSI-II cont. card	SALE $39.95

Jameco ISA Enhanced IDE Card

Supports 4 IDE including CD-ROMs/ tape drives and 2 floppy drives

This card is the only ISA IDE card currently available that provides multiword DMA transfer hardware (up to 8.33MB/sec.).
- ROM BIOS will auto-configure the IDE hard drive parameters with any set-up feature
- Includes cables and manual
- Weight: 0.7 lbs. • One-year warranty

Part No.	Description	1-4	5-9
127386	Enhanced IDE/floppy contr.	SALE $69.95	
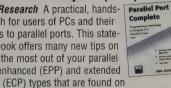
Jameco IDE CD-ROM Card

The inexpensive solution when upgrading with multimedia!

- Uses popular and unique IRQs and I/O addresses for CD-ROM configuration
- Primary I/O address 1F0, secondary, tertiary and quat. addresses require driver software (not included)
- IRQs: 10, 12, 14, 15 • Includes cable and instructions
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
133188	IDE CD-ROM card	$19.95	$17.95

Parallel Port Complete (1996)

Lakeview Research A practical, hands-on approach for users of PCs and their connections to parallel ports. This state-of-the-art book offers many new tips on how to get the most out of your parallel port. New enhanced (EPP) and extended capabilities (ECP) types that are found on most new systems are covered. (343 pages)
- Windows® 3.1 and Windows® 95 • PC to PC links
- How to select cables • Includes 3.5" software disk
- Size: 7.0" x 10.0" • Weight: 1.4 lbs.

Part No.	Description	1-4	5-9
138261	Parallel Port Complete w/ SW	$39.95	$35.95

Jameco ISA/IDE Super 16-Bit I/O Plus Cards

Supports 2 IDE and 2 floppy drives

- Parallel printer port (P/N 131318 is bi-directional)
- Game port
- Two RS232 serial ports
- UART emulation: **67061** – 16450; **131318** – 16550
- Includes manual and cables
- Weight: 0.9 lbs. • One-year warranty

Part No.	Description	1-4	5-9
67061	16450 UART I/O card	$29.95	$19.95
131318	16550 UART I/O card	39.95	35.95

Jameco VESA/IDE Super I/O Card

Supports 2 IDE, 2 floppy drives, 2 serial, parallel, game port

- For use only with AT and compatibles with VESA local bus
- Supports up to two IDE hard disk drives
- Supports up to two floppy disk drives: 1.44 MB, 1.2 MB, 720KB and 360KB densities
- Game port and parallel port • 16450 UART emulation
- Dual serial communication ports: COM1, COM3 and COM2, COM4
- Cables, spec sheet and driver diskette included
- Weight: 0.8 lbs. • One-year warranty

Part No.	Product No.	Description	1-4	5-9
105072	DC75VLB	Super I/O card	$24.95	$22.49

Jameco IDE Disk Drive Adapter Controller Cards

Standard Features:
- Interfaces two IDE hard drives to system
- Includes cable(s) and operating manual
- One-year warranty (P/N 109049 – 90-day warranty)

10250 Features:
- 16-bit IDE hard disk and floppy disk interface
- Works with any combination 360KB, 720KB, 1.2MB and 1.44MB
- Operates up to two floppy disk and two hard disk drives

10276 Features:
- 16-bit IDE hard disk interface
- Can operate as a secondary hard disk controller
- On board BIOS to self configure drive
- BIOS address relocatable

10284 Features:
- 16-bit IDE hard disk and floppy disk interface
- Supports two floppy and two hard disk drives
- Can operate as a secondary hard disk controller
- Floppy controller can be disabled
- BIOS address relocatable

Part No.	Description	Weight (lbs.)	1-4	5-9
109049	16-bit HD adapter	0.4	Closeout	$3.95
10250	16-bit HD/FD adapter	0.5	19.95	17.95
10268	8-bit HD adapter w/ BIOS	0.5	SALE	49.95
10276	16-bit HD adapter w/ BIOS	0.5	SALE	26.95
10284	16-bit HD/FD adapter w/ BIOS	0.7	Closeout	39.95

Jameco Vertical Computer Enclosures with Power Supply

- Back panel supports seven expansion slots
- Slide-off side panel accesses roomy interior
- Includes power cord and 8Ω/5W speaker
- Assorted attachment screws
- 230V/115V switch • One-year warranty

138798: Mid Tower
- Front panel will hold CD-ROM, two hard drives and two 3.5" drives
- 250W UL/CSA/CE approved power supply
- Size: 8.5"W x 17.8"D x 17.3"H • Weight: 22.5 lbs.

▲ Easy access through slide-off side panel

140038: Mid Tower
- For ATX Pentium Pro® motherboards
- Front panel will hold CD-ROM, two hard drives, two 3.5" drives
- 250W UL/CSA/CE approved power supply for ATX connection
- Size: 8.6"W x 17.8"D x 17.3"H • Weight: 23.0 lbs.

138801: Full Tower
- Front panel has six full bays and two 3.5" bays
- Attachable base for added support (some assembly required)
- 300W UL/ CSA/TUV approved power supply
- Size: 7.5"W x 17.3"D x 24.3"H • Weight: 33.3 lbs.

300 Watt!

138801   138798

Part No.	Description	1-4	5-9
138798	Mid tower case with 250W power supply	$119.95	$109.95
140038	Mid tower case with 250W power supply (for ATX Pentium Pro®)	129.95	116.95
138801	Full tower case with 300W power supply	SALE	179.95

Jameco Mini-Vertical Case with 250 Watt Power Supply

- Fits all size baby motherboards
- Back panel with 8 expansion slots
- Power, turbo, hard disk indicator and CPU speed display
- (5) drive bays, (4) exposed:
  (2) 3.5" drive bays,
  (2) 5.25" drive bays,
  (1) 3.5" hard drive bay
- Switches for turbo and reset
- Speaker and hardware included
- 250W UL/CSA approved power supply
- Size: 7.0"W x 16.0"D x 13.0"H • Weight: 13.6 lbs.
- Color: beige • One-year warranty

Part No.	Product No.	Description	1-4	5-9
20546	JE2032	Case w/ pwr. supply	SALE	$69.95

Jameco Multimedia Case with Built-In Speakers

- PC/XT/AT compatible
- Two built-in 15 watt speakers
- Built-in stereo amplifier
- Two internal 3.5" drive bays
- Two external 5.25" and one 3.5" drive slots
- Eight card slots
- Front panel mounted switches for power, turbo, reset plus volume, tone and balance control
- Front panel bar graph display
- 230W UL/CSA approved power supply
- Size: 16.0"L x 15.0"W x 7.0"H
- Weight: 23.4 lbs. • One-year warranty

Part No.	Description	Price
123035	Mult. case w/ pwr. sup.	Closeout	$99.95

Jameco PC/XT Compatible Desktop Computer Case

VALUE

- Four half-height 5.25" drive bays, two exposed
- Back panel with 8 expansion slots, two DB25 openings and power supply mount
- Speaker and hardware included • Color: beige
- Recommend P/N 19465 or 67467 power supply (pg 99) • Fits all XT motherboards
- Size: 19.5"W x 16.3"D x 5.9"H • Weight: 17.0 lbs.

Part No.	Product No.	Description	Price
20511	JE2021	Desktop slide case	Closeout	$19.95

Jameco Vertical Case with 300 Watt Power Supply

- Back panel with 8 expansion slots
- Six half-height drive bays; four exposed
- 300W UL/CSA approved power supply
- Size: 7.0"W x 16.0"D x 25.5"H
- Weight: 34.8 lbs.
- Color: beige
- One-year warranty

Part No.	Product No.	Description	Price
65648	JE2030A	Case w/ pwr. supply	Closeout	$159.95

External SCSI-I Dual Drive Enclosure

- 50W UL/CSA/TUV approved power supply
- AC-outlet socket
- 5.25" full height with accessible bay
- Two SCSI devices
- For HD drive and optical drive

Part No.	Size (L" x W" x H")	Wt. (lbs.)	1-4	5-9
125031	11.4 x 9.0 x 4.3	7.5	$89.95	$79.95

Jameco Computer Brackets

139424 101717 140767 101741 101830 101709

- Fits standard PC/XT/AT cases • Length: 4.75"
- For securing cards into bus slots
- Can be used to expand card I/O   FTP
- See pg 47 for DB connectors • Weight: 0.04 lbs.
- * 1.0" top end to first tab (center hole) – 2.5" tab to tab (center hole)
- ** 1.02" top end to first hole – 1.9" hole to hole

Part No.	Description	1-9	10-99	100
11754	Blank back panel bracket	$1.49	$1.25	$.99
139424*	Blank back panel w/ board mt.	1.49	1.25	.99
101717	For DE9 connector	1.49	1.25	.99
101733	For DB25 connector	1.49	1.25	.99
140767**	For DB25 connector	Closeout		.75
101741	For DC37 connector	1.49	1.25	.79
109946	For 2 DE9 connectors, 2 round holes	1.49	1.25	.99
114147	For 2 DE9 connectors, DIP switch between	Closeout		.25
101830	For DE9 and DB25 conn.	1.49	1.25	.99
101709	For DA15 and DB25 conn.	1.49	1.25	.79

Replacement Switches
For Computer Cases

For Jameco and most other cases

PC Rocker Switch
- For minitower cases
- DPST • 250V @ 10A
- UL/CSA approved
- Size: 0.9"L x 1.2"W x 1.4"D

Part No.	Product No.	Description	1-9	10-99
127028	SW100	PC rocker switch	$2.49	$1.95

PC Toggle Switch
- For many desktop and large tower cases
- DPST • 250V @ 10A
- UL/CSA/VDE approved
- Size: 1.2"L x 0.7"W x 1.1"D

Part No.	Product No.	Description	1-9	10-99
127036	SW101	PC toggle switch	$1.95	$1.49

PC Push Button Switch
- Alternate action switch (DP)
- 250V @ 7.5A
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D

Part No.	Product No.	Description	1-9	10-99
127044	SW102	PC push button sw.	$2.49	$1.95

Jameco Computer Stand
- Holds computer vertically to conserve space   VALUE
- Adjustable size • Color: beige
- External size: 12.0"L x 8.0"W x 3.6"H
- Weight: 1.0 lb.

Part No.	Product No.	Description	Price
20191	JE1197	Computer stand	Closeout	$1.95

TecNotes Clipboard

Recycled from overruns of computer circuit boards destined for the land-fill, *TecNotes* are very sturdy and colorful. The clipboard is 9" x 13" and will dazzle any boardroom. Made in USA.

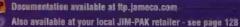- Contains no solder or lead; color varies.

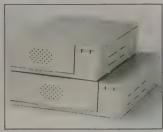| Part No.	Description	Wt. (lbs.)	1-9	10-24
93711	Clipboard	0.7	SALE	$11.49

Compact Series – External Cases
For HD, DAT, MO, CD-ROM

- SCSI interface
- Removable drive bracket for easy installation
- Multiple front panels to fit different types of storage devices

129728/129736

- Built-in 50 watt power supply (UL/CSA/TUV approved) and fan
- Meets FCC requirements
- Drive space 1 x half height 5.25" or 3.5"
- Comes with necessary ID cables for all types of drives
- SCSI-ID address selector on SCSI models
- One-year warranty

129728:
- Size: 6.5"W x 9.8"D x 2.4"H   • Weight: 3.5 lbs.

129736:
- Size: 8.3"W x 10.5"D x 2.3"H   • Weight: 4.2 lbs.

Part No.	Description	1-4	5-9
129728	SCSI, 3.5" ext. case	$79.95	$71.95
129736	SCSI, 5.25" ext. case	79.95	71.95

Elegant Series – Drive Enclosures
For HD, DAT, MO, CD-ROM

2 Built-in fans to cool off high speed drives

Perfect for Barracuda Drives!

- New generation of SCSI enclosures with 50 watt universal (90~264V) power supply
- Swing-out foot pads for better vertical stability
- SCSI-ID address selector
- Multiple front panels to fit different types of storage devices   • Drive space 1 x half height 5.25" or 3.5"
- Comes with necessary ID cables for all types of drives
- Removable drive bracket for easy installation
- Size: 6.5"W x 9.7"D x 2.4"H
- Weight: 3.6 lbs.   • One-year warranty

Part No.	Description	1-4	5-9
129744	SCSI 3.5" ext. case	$89.95	$80.95

Jameco External CD-ROM Cases

- SCSI or IDE interface
- Streamlined appearance
- Metal body with plastic front panel
- RCA jack

129710

- SCSI-ID address selector on SCSI model (for CD1)
- 25 watt universal switching power supply
- Size: 6.5"W x 11.8"D x 2.0"H
- Weight: 3.8 lbs.   • P/N 129710: One-year warranty

126391:
- Use cable (P/N 73162, pg 126) for connections

Part No.	Description	1-4	5-9
126391	SCSI CD-ROM ext. case	$54.95	$49.95
129710	IDE CD-ROM ext. case	89.95	80.95

Removable Racks and Inserts

- Removable storage for 3.5" IDE or SCSi I/II hard drives
- Air-vents
- Power LEDs

129816

- Keylock for security   • One-year warranty

129816: • Size: 5.8"W x 8.5"D x 1.5"H   • Weight: 1.2 lbs.
129824: • Size: 5.8"W x 8.3"D x 1.5"H   • Weight: 1.2 lbs.

Inserts Enclosures for Removable Racks
- Includes inner cable with IDE or SCSI-I connector
- Size: 4.1"W x 7.5"D x 1.6"H   • Weight: 0.9 lbs.
- One-year warranty

Part No.	Description		1-4	5-9
129816	Rack, IDE hard drives	SALE		$35.95
129824	Rack, SCSI I/II hard drives	29.95	24.95
135861	Removable inserts – IDE	19.95	17.95
135853	Removable inserts – SCSI	19.95	17.95

Hot-Swappable Removable Racks

These racks are hot-swappable through the keylock switch. Avoid down time while adding or removing drives! Lock

134068

and you power up; there is no power contact until you lock the rack.

- Air vents   • Power LEDs   • Keylock for security
- SCSI racks have fans – 12VDC @ 0.9 watts
- With cooling fan: P/N 134076
- One-year warranty

134068: Size: 8.8"L x 5.8"W x 1.7"H   Weight: 1.4 lbs.
134076: Size: 8.8"L x 5.6"W x 1.7"H   Weight: 1.4 lbs.

Part No.	Description		1-4	5-9
134068	IDE hot swappable rack	SALE		$69.95
134076	SCSI I/II hot swappable rack	79.95	71.95

ATEN® Portable 2.5" and 3.5" External Hard Drive Enclosures

These attractive 2.5" and 3.5" external IDE drive enclosures will give you the spare drive you need for extra storage anywhere! They are ideal for disk backup, multimedia, data protection, file transport, testing and software installation.

- Use on any computer with a parallel port   • Use with IDE drives
- Allows hard drive to be set up to a parallel port at the same time and is transparent to the user
- Compatible with DOS and Windows®
- Includes cable, manual and attractive carrying case
- Enters power save mode after 20 minutes idle time
- One-year warranty

Excellent for Travel!

122948

Compatible with Windows® '95!

122948: 2.5" External HD Enclosure
- Write protection and switch selectable
- Uses keyboard adapter for power

129699: 3.5" External HD Enclosure
- Includes 12VAC external power adapter

129699

Part No.	Description	Size (L" x W" x H")	Wt. (lbs.)	1-4	5-9
122948	2.5" external hard drive enclosure	7.3 x 6.0 x 2.0	1.2	$79.95	$71.95
129699	3.5" external hard drive enclosure	8.8 x 5.3 x 1.5	4.5	89.95	80.95

Multiple-Drive External Subsystem Enclosures
For Multiple HDs, Network CD-Servers, RAIDs

- Zinc plated metal body with streamlined plastic front panel   • Internal SCSI cables with ID address selectors
- High quality internal Centronics or SCSI-II cables; optional SCSI-III also available
  – call for pricing and availability   • One-year warranty

129761/137509: 5.25" Full Height or 2-Half Height Bays
- Two SCSI-ID address selector
- RCA jack
- 80W switching power supply with UL/CSA/TUV approval
- Size: 7.1"W x 11.3"D x 6.5"H
- Weight: 8.7 lbs.
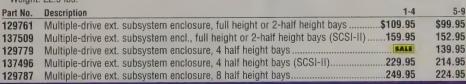
129779/137496: 5.25" 4-Half Height Bays
- 200W switching power supply with UL/CSA/TUV approval
- Size: 7.0"W x 14.1"D x 10.3"H
- Weight: 15.0 lbs.

129787: 5.25" 8-Half Height Bays
- 250W switching power supply with UL/CSA/TUV approval
- Size: 7.0"W x 15.6"D x 17.0"H
- Weight: 22.9 lbs.

New SCSI-II Cases!

P/N 129761 shown with removable rack (not included)

129787   129779   129761

Part No.	Description	1-4	5-9
129761	Multiple-drive ext. subsystem enclosure, full height or 2-half height bays	$109.95	$99.95
137509	Multiple-drive ext. subsystem encl., full height or 2-half height bays (SCSI-II)	159.95	152.95
129779	Multiple-drive ext. subsystem enclosure, 4 half height bays	SALE	139.95
137496	Multiple-drive ext. subsystem enclosure, 4 half height bays (SCSI-II)	229.95	214.95
129787	Multiple-drive ext. subsystem enclosure, 8 half height bays	249.95	224.95

SL WABER Power Products

6 Outlet Wall Plug-in

- Electrical rating: 15 amp, 120VAC, 60Hz
- UL 1449 suppressed voltage rating: 400V
- Protection devices: metal oxide varistors
- Clamping response time: <5nsec.
- EMI/RFI noise rejection: up to 15dB
- Indicator light shows surge protection is working
- Easily installs into wall outlet • Color: beige
- Size: 4.8"L x 3.3"W x 1.3"H • Weight: 0.4 lbs.

Part Number	Product Number	Description	1-9	10-49
99291	EP6	Wall plug-in	$4.95	$3.95

SurgeSentry® 6 Outlet

- Ultimate 3-stage protection
- 62,525 amp spike suppression; 880 joules
- Clamping response time: 1psec.
- 330V clamping voltage
- Audible alarm
- EMI/RFI noise reduction
- 3-line protection • 6' cord
- Size: 6.5"L x 4.3"W x 2.5"H
- Weight: 1.7 lbs.

Part No.	Description	1-4	5-9
133090	6-outlet, suppress 62,525 amp	$24.95	$22.49

DataGard® 7 Outlet

- Standard 1-stage protection
- 13,000 amp spike suppression; 520 joules
- Clamping response time: 1nsec.
- Audible alarm • 330V clamping voltage
- EMI/RFI noise reduction • 3-line protection
- 6' cord with right angle connector
- Size: 15.5"L x 2.3"W x 1.4"H • Weight: 1.4 lbs.

Part No.	Description	1-9	10-49
133081	7-outlet, suppress 13,000 amp	$14.95	$11.95

4 IEC Outlet Power Strip

- Rating: 10A / 250VDC
- 4 IEC 320 outlets, 1 IEC male inlet
- 10 amp circuit breaker
- Compatible cords: P/N's 38050, 121291 (pg 57)
- Size: 8.8"L x 2.5"W x 1.8"H
- Weight: 0.9 lbs.

Great for monitor installations!

Part No.	Description	1-4	5-9
144101	4 IEC outlet power strip	$39.95	$35.95

3M Hook and Loop Fasteners

Allows attachment to substrates with the convenience and ease of rubber adhesive. Offers high adhesive bond to a wide variety of materials and provides excellent moisture resistance.

- 5/8" wide • Color: black

Part No.	Product No.	Description	1-9	10-49	50+
144291	SJ356/7	Fasteners	$6.95	$5.95	$4.95

Powerhouse 500 Computer Back-up Power Supply
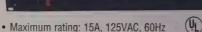
- 500VAC/340W
- 6 outlets – two full-time "surge only" protected receptacles, four full-time "uninterruptible power supply" receptacles
- RFI/EMI protected
- Instant microprocessor back-up power to keep your system running during power outages
- Recharge time: less than 2 hours
- Input voltage: 120VAC @ 12A, 60Hz
- LED/audible indicators • One-year warranty
- Size: 11.8"L x 5.3"W x 7.0"H • Weight: 13.9 lbs.

Part No.	Description	Price
134316	6-outlet backup supply	$169.95

Rack Mount 6-Outlet Power Strip

- Maximum rating: 15A, 125VAC, 60Hz
- 1875 watts continuous duty
- Outlets: 30-duplexed "U" grounded
- Master switch with amber pilot lite
- 6' 14/3 SJT black molded plug
- Circuit breaker protection
- Use with relay rack P/N 133751 (pg 122)
- Size: Front plate: 19.0"L x 1.7"W
        Back cover: 17.0"L x 1.7"W x 2.4"D
        Mounting centers: 18.3" x 1.3"
- Weight: 2.8 lbs. • One-year warranty

Part No.	Description	1-4	5-9
134295	Rack power strip	$49.95	$44.95

10 Outlet Power Strip

- Rating: 15A/125VAC or 20A/125VAC
- Surge protection and EMI/RFI filtering
- Includes universal mounting clips
- Cord length: 6'
- Size: 4.0"L x 2.0"W x 1.5"H
- Weight: 4.0 lbs.
- One-year warranty • UL/CSA approved

Part No.	Description	1-4	5-9
144098	10 outlet power strip	$59.95	$53.95

Hospital Grade 6 Outlet Power Strip

- Maximum rating: 15A, 125VAC, 65Hz, 1875 continuous duty
- Power supply cord: 14/3 SJT hospital grade, 6'
- Protection: circuit breaker, black color
- Type III keyhole-slot flush mounting
- Size: 13.3"L x 2.4"W x 1.5"H • Weight: 2.3 lbs.
- One-year warranty • UL/CSA approved

Green Dot!

Part No.	Description	1-4	5-9
144119	6 outlet power strip	$69.95	$62.95

6' and 15' Floor Cordguards

	143790	143781	134252
Cord Dia.	Up to .31"	Up to .31"	Up to .50"
Color	Black	Beige	Beige
Length	6'	6'	15'
Wt. (lbs.)	1.9	2.1	5.5

Part No.	Description	1-9	10-49
143790	6' black cordguard	$6.95	$5.95
143781	6' beige cordguard	6.95	5.95
134252	15' beige cordguard	29.95	24.95

Jameco Six-Outlet Metal Power Strip Surge Protector

- Built-in safety circuit breaker (15 amps)
- Maximum spike current: 4500 amps, 50 joules
- Three-prong, 4' power cord • UL listed
- Color: beige, metal housing
- Size: 12.3"L x 2.4"W x 1.3"H • Weight: 1.5 lbs.

Part No.	Product No.	Description	1-9	10-49
20175	JE1191★	Power strip	$8.95	$7.95

IBM Easy Options Surge Protector

- 6-outlets – all protected
- 2-RJ11/45 phone, fax or modem jacks
- High speed fuse for catastrophic surge
- EMI/RFI noise filtration
- 200 volts clamping level
- UL 1449 surge protection listed to 400 volts
- 7' RJ11 4-wire phone cord included
- $25,000 lifetime manufacturer's guarantee
- Size: 6.6"L x 4.0"W x 1.6"H • Weight: 2.0 lbs.

Part No.	Description		Price
128602	6-outlet surge protector	Closeout	$29.95

Jameco DB25 Surge Suppressors

Protects your sensitive line driver/receivers against damaging power surges caused by lightning, static and power surges.

- In-line adapter to protect serial devices
- Female DB25 to male DB25 adapter 900 available

Closeout!

Part No.	Description	1-9	10-24
72371	RS232 serial surge sup.	$4.95	$3.95
112459	Parallel printer port sup. Closeout		.99

Computer Energy Saver

Preserves and protects your equipment by putting your printer and monitor into "sleep mode" after 5 minutes of inaction without loss of data.

- PC/XT/AT and compatibles
- Plug power cords from your printer and monitor into the unit and connect keyboard in series with DIN connector to computer and power from computer • UL and CUL listed
- Size: 2.6"L x 3.0"W • Weight: 0.5 lbs.

Part No.	Description		Price
127888	Monitor/printer saver	Closeout	$6.95

Jameco Power Base

- Master power switch and 5 auxiliary (15 amps) switches for each outlet
- Three-prong power cord
- Maximum spike current: 6,500 amps, 80 joules
- Color: beige
- Size: 12.0"L x 12.8"W x 2.3"H • Weight: 4.8 lbs.

Part No.	Product No.	Description	1-9	10-49
20159	JE1190	Power base	$19.95	$17.95

Tripp Lite isobar® Surge Suppressors

The world's best known, most advanced surge suppressor provides total protection against surges, spikes and line noise. Exclusive isolated filter banks prevent interference between connected equipment.

- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- Multi-component circuitry suppresses up to 120,000 amp spikes with up to 1,500 joules • Instantaneous (0 ns) surge response time
- "Cascade Circuitry" allows you to chose increased noise protection level for your most sensitive equipment
- Protection in all three AC modes: hot to neutral, hot to ground and neutral to ground • UL 1449 and 1283 listed
- IsoTel models have dual RJ11 jacks for complete modem/fax surge protection
- Lifetime warranty • Heavy duty, all-metal housing; made in USA
- 2-, 4-, and 6-outlet suppressors have 6' cord, 8- and 12-outlet suppressors have 12' cord
- Up to $25,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!

MADE IN USA

ULTIMATE LIFETIME INSURANCE

Isobar Premium Surge Suppressors

Part No.	Product No.	Joules	Description	Weight	Price
74456	ISOBAR 2-6	600	2 outlet, 1 isolated filters	1.8 lbs.	$34.95
18981	ISOBAR 4	1050	4 outlet, 2 isolated filters	2.4 lbs.	44.95
74544	ISOBAR 6	1200	6 outlet, 3 isolated filters	2.7 lbs.	54.95

Isobar Ultra Premium Surge Suppressors

Part No.	Product No.	Joules	Description	Weight	Price
136830	ISOBAR 4U	1050	4 outlet, 2 isolated filters	2.4 lbs.	**SALE** $49.95
19001	ISOBAR 8U	1200	8 outlet, 4 isolated filters	3.5 lbs.	69.95

Isotel AC/Phone Line Surge Suppressors

Part No.	Product No.	Joules	Description	Weight	Price
136848	ISOTEL 6U	1500	6 outlet, 3 isolated filters	3.0 lbs.	**SALE** $69.95

Isobar Premium 19" Rackmount Surge Suppressors

Part No.	Product No.	Joules	Description	Weight	Price
139686	IBAR12	750	2 outlet, 2 isolated filters	4.7 lbs.	$119.95

Tripp Lite OmniSmart PNP UPS Systems

- Advanced microprocessor control of all on-board operations
- Solution includes UPS hardware, PowerAlert CD-ROM and complete cabling
- Three levels of line interactive automatic voltage regulation
- Network monitoring interface (DE9 port) supports SNMP and automatic unattended shutdown of any network operating system
- Detailed self-test control feature
- Model 850 features a UPS overload indicator LED
- Built-in protection against surges and spikes; RFI/EMI line noise filtering prevents interference from affecting your computer
- Several second restart delay prevents damage to computer due to after-blackout rolling surges
- Continuous battery charging, even during brownout conditions, maintains full battery charge and prolongs battery life
- Cold-start feature allows you to use the UPS as a stand-alone power source without AC connection
- $50,000 Ultimate Lifetime Insurance on connected equipment
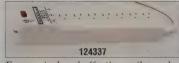
Part No.	Product No.	Description	Agency	Weight	Price
142615	OMNISMART280PNP	280VA, 2 outlets	UL/CUL	13.3 lbs.	$149.95
142623	OMNISMART675PNP	675VA, 4 outlets	UL/CUL	20.2 lbs.	249.95
142631	OMNISMART850PNP	850VA, 4 outlets	UL/CUL	27.0 lbs.	349.95

Tripp Lite Standard Surge Suppressors

Economical and effective spike and noise suppression.
- Super 7 suppresses 450 joules; $5,000 Ultimate Life insurance
- Super 8 suppresses 600 joules; $10,000 Ultimate Life insurance

Part No.	Product No.	Description	Weight	Price
124337	Super 7	7 outlets suppress 9,500 amp spikes	1.6 lbs.	$19.95
32045	Super 8	8 outlets suppress 48,000 amp spikes	1.7 lbs.	27.95

Tripp Lite Fax/Modem Protector

Protect fax machines, modems, data and telephone lines from surges and spikes.
- Two-year manufacturer's warranty
- Weight: 0.3 lbs. • Cable included

Part No.	Product No.	Description	Price
28601	PMP	Modem/telephone protection	$13.95

Tripp Lite BC Personal and BC Pro UPS Systems

BC Personal models:
- Protect against blackouts, brownouts, surges and spikes
- Perfect for home office, small office applications

$25,000 Ultimate Lifetime Insurance

BC Pro models have all the features of the BC Personal models, plus:
- LAN port for unattended shutdown of any network operating system
- Microprocessor controlled • Built-in diagnostic self-test function
- Diagnostic LEDs show UPS condition, load and battery charge status
- $25,000 Ultimate Lifetime Insurance on connected equipment

Part No.	Product No.	Description	Agency	Weight	Price
124206	BCPERS280	280VA, 2 outlets	UL/CSA	11.9 lbs.	$99.95
124222	BCPRO450	450VA, 4 outlets	UL/CSA	15.1 lbs.	179.95
124231	BCPRO550	550VA, 4 outlets	UL/CSA	19.3 lbs.	**SALE** 199.95
124249	BCPRO675	675VA, 4 outlets	UL/CSA	20.1 lbs.	249.95
124273	BCPRO1400	1400VA, 6 outlets	UL/CSA	42.0 lbs.	**SALE** 399.95

Tripp Lite Line Conditioners

These line conditioners keep you working through brownouts and overvoltages.
- Automatically adjust incoming AC from 87 to 140 volts
- No batteries required
- Built-in surge suppression and noise filtering
- UL listed
- Two-year manufacturer's warranty
- P/N 139694 : 19" rackmount with 12' cord
- Up to $25,000 Ultimate Lifetime Insurance for connected equipment

Part No.	Product No.	Description	Agency	Weight	Price
24619	LS600	600 watts, 2 outlets	—	4.5 lbs.	$99.95
22744	LC1200	1200 watts, 4 outlets	UL/CSA	8.6 lbs.	159.95
22787	LC1800	1800 watts, 6 outlets	UL	10.5 lbs.	219.95
139694	LCR2400	2400 watts, 14 outlets	UL/CSA	26.2 lbs.	399.95

Tripp Lite SmartPro Net Rackmount UPS Systems

- Single-purchase solution includes intelligent UPS, PowerAlert Plus network shutdown/monitoring software and complete cabling
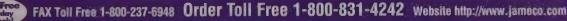- Fits standard 19" equipment racks
- Automatic Voltage Regulation (AVR) under/overvoltage correction
- Long lasting battery backup power with complete surge and line noise protection
- $50,000 Ultimate Lifetime Insurance covers all connected equipment

Part No.	Product No.	Description	Agency	Weight	Price
139715	Smart 1050RM	1050VA, 8 outlets, RJ11 jacks	UL/CSA	49 lbs.	$649.95

See page 111 for new Parallel Port Complete Book

Jameco Printer Card
2 Bi-directional Parallel Ports

- 286, 386, 486 and Pentium® systems (16-bit bus)
- Supports ECP/EPP/SPP
- Select from IRQs: 3, 4, 5, 7, 9, 10, 11, 12, or 15
- Address selectable to LPT1-LPT6
- Print mode jumper selectable
- Weight: 0.6 lbs. • One-year warranty

Part No.	Description	1-4	5-9
132214	2-port printer card	$39.95	$36.95

Jameco Printer Card
1 Bi-directional Parallel Port

- PC/XT/AT and compatibles
- One port, non-expandable
- Jumper selectable for normal or bi-directional modes • Configure to IRQ 5 or 7
- Address selectable to LPT1-LPT6
- Weight: 0.3 lbs. • One-year warranty

Part No.	Product No.	Description	1-4	5-9
129373	JE1160	Printer card	$19.95	$17.95

Jameco Fast 16C650 16-Bit I/O Cards

P/N 136995: Two 16C650 Serial Ports
P/N 137007: Four 16C650 Serial Ports
P/N 137015: Two 16C650 Serial Ports and one EPP/ECP Bi-directional Parallel Port

These unique cards feature the super fast 16C650 UARTs, 32 byte FIFO buffers and the latest technology to deliver a full range of IRQ and COM selections.

- PC/XT/AT and compatible computers
- IRQs: 3, 4, 5, 6, 7, 9, 10, 11, 12, and 15
- COM ports 1-8, ports can be disabled
- Serial ports addressable to 3F8, 2F8, 3E8, 2E8, 250, 258, 260, 268
- Jumpers for 1X, 2X, 4X clock throughputs (1X @ 1.84MHz)
- 3.5" disk includes SETIO setup software which allows you to view IRQs and drivers for Windows® 3.X and Windows® 95
- Includes manuals and DB25 male cables with panel brackets for feature connectors where applicable
- One-year warranty

P/N 136995:
- DE9 and DB25 male connectors • Weight: 0.5 lbs.

P/N 137007:
- Interrupt sharing for use in SCO, UNIX and XENIX
- Jumpers for AST, DOS and EXT1/EXT2
- DB25 male connector • Weight: 0.9 lbs.

P/N 137015:
- Parallel port configurable using LPT 1-6 addresses: 3BC, 378, 278, 268, 27C, 26C • Weight: 0.7 lbs.
- Connectors: DE9 male serial and DB25 male parallel

Part No.	Product No.	Description	1-4	5-9
136995	JE1167	2-serial port card	$49.95	$44.95
137007	JE1168	4-serial port card	99.95	89.95
137015	JE1169	2-serial 1 parallel	SALE	62.95

Jameco 16-Bit RS232 Serial Cards

- 286/386/486 and Pentium® based computers
- Two high speed RS232C serial ports (9 and 25-pin D-sub male)
- Supports all IRQ selections for ports A and B
- Flexible I/O address selection for ports A and B
- Two different clock sources for serial controller: normal clock 1.8432MHz, double clock 3.6864MHz
- Includes manual • One-year warranty
- Size: 6.5"L x 2.5"W • Weight: 0.4 lbs.

139379: • One 16550 chip installed – expandable to two ports • Expansion requires P/N 23157 (1) (pg 12) and P/N 23181 (1) (pgs 11-12), and P/N 27596 (pg 9)

127132: • Two ports
• Both 16550 chips installed – expandable to two ports

Part No.	Description	1-4	5-9
139379	16550 UART 1 port	$24.95	$22.49
127132	16550 UART 2 ports	34.95	31.49

Jameco High-Speed Serial Card
4 Serial Ports

- PC/XT/AT and compatibles
- Four serial ports; two each DE9M and DB25M
- High-speed 16C550 UARTs with 16 byte FIFO
- IRQs: 3, 4, 5, 7, 9, 10, 11, 12, and 15
- Includes cables and instruction sheet
- Weight: 0.7 lbs.
- One-year warranty

COM	Address	COM	Address
1	3F8	5	3F0
2	2F8	6	3E0
3	3E8	7	2E0
4	2E8	8	260

Part No.	Description	1-4	5-9
132572	4-port hi-speed serial card	$49.95	$44.95

Jameco Serial Card
4 Serial Port UNIX

- PC XT/AT/286/386/486 and compatibles
- Four serial ports (RS232 interface) for asynchronous communication
- Four DB25 male connectors 7.25" long
- Parallel port (LPT1 & LPT2) selectable
- Suitable for MS/DOS, Windows®, XENIX/UNIX, PICK, PC-MOS/386, Concurrent DOS
- AST fourport/XN, ARNET compatible
- Multi operation system interrupt selectable (IRQ2-15)
- COM1-COM4 individual interrupt selectable (IRQ2-15)
- UART (16C450 or 16C550) selectable
- Weight: 1.1 lbs. • One-year warranty

Part No.	Description	1-4	5-9
104678	4-port serial card	$79.95	$71.95

Flexport 22 EX I/O Card
2 Ultra-Speed Serial/2 Parallel Ports

- Two (16C650) serial ports
- Two (EPP/ECP) parallel ports
- 460Kbps transfer rate for UNIX/DOS
- Spider cable with two 9-pin D-sub connectors for serial ports and two 25-pin D-sub connectors for parallel ports
- Header for internal ribbon cable connections
- Multiple addresses for each serial port
- 10 IRQs for each serial and each parallel port
- Weight: 1.6 lbs. • Two-year warranty

Ideal for ISDN Adapters!

Part No.	Description	1-4	5-9
136477	Multiport super I/O card	$139.95	$129.95

Jameco Input/Output Card
4 Serial/3 Bi-directional Parallel Ports

- 16-bit card
- PC/XT/AT and compatibles
- Can be used in an 8-bit system with IRQ 3, 4, 5, 7
- Four serial ports – addressable to 3F8, 2F8, 3E8, 2E8
- Three parallel ports – addressable to 3BC, 378, 278
- All ports configurable to IRQ 3, 4, 5, 7, 9, 10, 11, 12, and 15
- Ports are jumper selectable and can be disabled
- Parallel ports are bi-directional selectable
- UART chips emulate 16550 UARTs
- Cables and panel brackets included for all ports
- Three DB25 female parallel connectors
- Three DE9 male and one DB25 male serial connectors • Includes manual
- Weight: 1.0 lb. • One-year warranty

Part No.	Description	1-4	5-9
117971	I/O card (16550 UART)	$89.95	$80.95

Jameco Input/Output Cards
2 Serial/1 Parallel Ports

- PC/XT/AT and compatibles
- One parallel printer port
- Two RS232C serial ports
- One game port
- All ports can be disabled
- Includes cables and manual
- One-year warranty

8-bit 105611: • Primary: COM1 or COM3
- Secondary: COM2 or COM4
- Interrupt requests for primary and secondary serial ports: IRQ 3, 4, 5 and 9 • Weight: 0.4 lbs.

16-bit 120432: • Primary: COM1, COM2 or COM3
- Secondary: COM1, COM2 or COM4
- Selectable to IRQ: 3, 4, 5, 7, 9, 10, 11, 12 or 15
- One multi-mode parallel port selectable to standard parallel port (SPP), enhanced parallel port (EPP) or extended capability port (ECP) • Weight: 0.5 lbs.
- Address selectable to LPT1-LPT6 and select from IRQs: 3, 4, 5, 7, 9, 10, 11, 12, or 15

Part No.	Description	1-4	5-9
105611	I/O card (w/ 16450 UART)	$24.95	$22.49
120432	I/O card (w/ 16550 UART)	49.95	39.95

"Extended" I/O Card
4 Serial/2 Bi-directional Parallel Ports

Add more peripherals to your system and avoid Com port conflicts using this card with extended address/IRQ options!

- For compatibles 286 & up • Compatible w/ Windows® '95
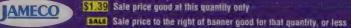- With extended IRQs: 3, 4, 5, 7, 9, 10, 11, 12, 14, 15 for all serial and parallel ports
- 16-byte FIFO buffer • UART chips emulate 16550
- One 37-pin connector with 4 DE9 cable fanout for easy connection • 2 parallel cables
- Configureable using COM 1-8 and LPT 1-3
- Includes manual and quick reference card
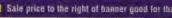- Weight: 1.7 lbs. • Two-year warranty

Part No.	Description	Price
130876	Extended I/O card	$116.95

JAMECO $1.39 Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less

FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128

OEM Pricing Available!

16-Bit I/O Card
Two 16C550 Serial Ports

- PC XT/AT, Pentium® and compatibles
- Windows® 3.x and 95
- 2 high speed (16C550) serial ports
- IRQ's: 3, 4, 5, 7, 9, 10, 11, 12, 14, 15
- Serial ports addressable to 3F8, 2F8, 3E8, 2E8, 100, 180, 290, 340
- Serial ports: one 9-pin and one 25-pin D-sub male connectors • Includes manual
- PCB size: 6.5"L x 3.5"H • One-year warranty
- Weight: 0.7 lbs.

Part No.	Description	1-4	5-9
142826	Two-port serial card	$69.95	$62.95

High Speed Serial Card
Four 16C550 Serial Ports

- AT 286/386/486 compatible
- Four serial ports: 2 DE9 male, 2 DB25 male
- Serial ports can be configured by removing or inserting jumpers
- 16C550 UARTs with 16 bytes FIFO buffer built in allow data to enter the PC while the CPU is busy servicing other interrupt requests
- IRQs: 3, 4, 5, 7, 9, 10, 11, 12, 14, 15
- Serial ports addressable to: 340, 290, 180, 100, 2E8, 3E8, 2F8, 3F8
- Includes cables, manual and quick refrence guide
- Weight: 1.4 lbs. • One-year warranty

Part No.	Description	1-4	5-9
144063	Four-port serial card	$139.95	$125.95

LM PC Products Serial Easy Cable Automated Switch Box

- Minimum system requirements: PC compatible, 386 processor, Windows® 3.xx in enhanced mode, 0.5MB hard disk space
- Device and cable configurations selected through software
- 1' cable has DE9 connectors: one female, two male
- Includes power adapter (6VDC @ 200mA), user's manual and software (3.5" disk)
- Switch box size: 4.3"L x 2.5"W x 0.9"H
- Weight: 1.4 lbs. • One-year warranty

Part No.	Description	Price
135933	1-in-2-out serial switch box	$119.95

Jameco 8MB SIMM Memory Expansion Card

- AT/386/486 compatible
- Expands memory up to 8MB
- Use 1MB SIMMs in 2MB increments (P/N 41769, pg 16)
- EMS 4.0 compatible (100% hardware)
- Software driver included • 0KB installed
- Weight: 1.3 lbs. • One-year warranty

Part No.	Description	Price
112141	8MB memory card SALE	$99.95

4-to-1 Parallel and Serial Auto Switch Boxes

76945

- Expandable to 1MB with RAM module (see below)
- Automatic and manual modes selectable
- Transparent to user • Non-power (passive)
- 76953 Interface: 4 DB25 female input ports 1 DB25 male output port
- 76945 Interface: 4 DB25 female input ports 1 DB25 female output port
- AC adapter is optional, not included – recommend P/N 100853 (pg 63)
- Manual included • One-year warranty
- Size: 8.8"L x 6.3"W x 2.3"H • Weight: 3.7 lbs.

Part No.	Description	1-4	5-9
76953	Serial switch box	$59.95	$53.95
76945	Parallel switch box	69.95	62.95
85569	1MB RAM module for 76945 SALE	99.95	

4-to-2 Parallel Auto Switch Box

- Two output ports
- Auto and manual modes selectable
- Transparent to user
- AC adapter and manual included
- Size: 10.8"L x 5.8"W x 1.3"H
- Weight: 2.8 lbs. • One-year warranty
- Interface: 4 DB25 female parallel input ports 2 DB25 female parallel output ports

Part No.	Description	1-4	5-9
76902	Parallel switch box	$89.95	$79.95

Bi-directional Auto Parallel Switchers

- Supports IEEE 1284 nibble mode
- Windows®/DOS compatible
- Cable distance (max.): 20' (see page 126 for cables)
- DB25 connectors
- Includes software and manuals
- Size: 4.0"L x 3.3"W • One-year warranty

P/N 127221:
- Connects 2 computers to 1 printer, or 1 computer to 2 printers
- Timeout: 10 sec.
- Non-powered (power/adapter optional)
- Manually switchable via software or switch
- First-come, first-served transfer • Weight: 0.4 lbs.

127221

P/N 142287:
- Connects 2 computers to 1 printer, or 1 computer to 2 printers
- Selectable timeout: 15, 45 sec.
- Non-powered (power/adapter optional)
- Manually switchable via software or button
- Broadcast mode (send same file to two printers of same mode simultaneously)
- Weight: 0.4 lbs.

142287

Part No.	Description	1-4	5-9
127221	Auto switch – 2-1, 1-2	$29.95	$26.95
142287	Auto switch – 2-1, 1-2	49.95	44.95

Low-Cost Switch Boxes

Switch from printer to modem, share a printer between computers, or many other applications including video, fax/modem, networking and keyboard/monitor switching.

- Metal construction
- Color: beige • One-year warranty

73322

See pages 126-127 for compatible cables
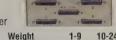
2-way Switch Box – DB25 (female)
- Typical application: printer

Part No.	Size (L x W x H)	Weight	1-9	10-24
20095	6.0" x 5.8" x 2.3"	1.3 lbs.	$8.95	$7.95

4-way Switch Box – DB25 (female)
- Typical application: printer

Part No.	Size (L x W x H)	Weight	1-9	10-24
20124	6.0" x 4.0" x 2.4"	1.5 lbs.	$14.95	$13.49

2-way Switch Box – DA15HD/5-pin DIN (female)
- For two computer systems requiring one keyboard and one monitor – diodes maintain keyboard in powered state

Part No.	Size (L x W x H)	Weight	1-9	10-24
114155	6.0" x 4.0" x 2.3"	1.3 lbs.	$17.95	$15.95

2-way Switch Box – DA15HD/5-pin DIN (female)
- For single computer system requiring use of two keyboards and two monitors

Part No.	Size (L x W x H)	Weight	1-9	10-24
114163	6.0" x 4.0" x 2.3"	1.3 lbs. SALE		$13.49

2-way Switch Box – HDD 15/6-pin mini DIN (female)
- Typical application: monitor/keyboard

Part No.	Size (L x W x H)	Weight	1-9	10-24
79177	6.0" x 4.5" x 2.6"	1.3 lbs.	$14.95	$13.49

2-way Switch Box – DE9 (female)
- Typical application: serial or TTL monitor
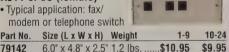
Part No.	Size (L x W x H)	Weight	1-9	10-24
79126	6.0" x 4.8" x 2.5"	1.2 lbs.	$9.95	$8.95

2-way Switch Box – RJ11 6P6C (female)
- Typical application: fax/modem or telephone switch

Part No.	Size (L x W x H)	Weight	1-9	10-24
79142	6.0" x 4.8" x 2.5"	1.2 lbs.	$10.95	$9.95

2-way Switch Box – 8-pin mini DIN (female)
- Typical application: Macintosh®

Part No.	Size (L x W x H)	Weight	1-9	10-24
79134	5.5" x 5.0" x 2.0"	1.2 lbs.	$12.95	$9.95

2-way – 2 DB25 (female), 1 36-pin Centronics (female)
- Typical application: printer
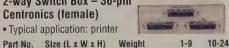
Part No.	Size (L x W x H)	Weight	1-9	10-24
73322	6.0" x 5.3" x 2.0"	1.4 lbs.	$14.95	$13.49

2-way Switch Box – 36-pin Centronics (female)
- Typical application: printer

Part No.	Size (L x W x H)	Weight	1-9	10-24
20132	6.0" x 5.8" x 2.3"	1.4 lbs.	$9.95	$8.95

JAMECO Bi-directional Serial/Parallel Converters

- US input voltage versions available
- Bi-directional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female (serial) and one Centronics 36-pin male (parallel)
- Stop bits: 1 or 2 • Baud rate: 300 to 38,400 bps
- Includes AC adapter (9VAC @ 200mA) and manual
- Size: 4.0"L x 2.5"W x 1.0"H • Weight: 0.8 lbs.
- One-year warranty

Part No.	Description	1-4	5-9
116935	110VAC bi-convtr. non-buffered	$49.95	$44.95

Bi-directional Serial/Parallel Converter

115.2kbps, 110 byte buffer NEW

- One DB25 female connector, one Centronics 36-pin male connector
- DCE/DTE selectable switch
- Fully compatible with Window 95®
- Baud rate: 300 bps - 115200 bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- Stop bits: 1 or 2 • Buffer size: 110 bytes
- Size: 3.3"L x 2.3"W x 1.0"H • Weight: 0.3 lbs.
- One-year warranty

Part No.	Description	1-4	5-9
144961	Bi-directional converter	$69.95	$62.95

JAMECO DB25-Pin Parallel Data Line Booster Adapter

- Extends parallel signal up to 50 feet
- Used on the DB25 end of your printer cable
- Extension cable should be 25-pin straight through and shielded
- Connectors: one male and one female DB25-pin
- Unit includes one 115VAC power adapter (9VDC @ 200mA)
- Size: 3.5"L x 2.0"W x 0.8"H • Weight: 6.0 lbs.

Part No.	Description	1-4	5-9
28556	Parallel booster	$22.95	$19.95

Modem Technical Guide

MICRO HOUSE This guide gives you set-up information, hardware configuration settings and diagrams for many popular modems.
- Detailed summaries of standard and proprietary commands
- Glossary details modem and telecommunication terms
- Includes a manufacturer's directory
- Bonus CD-ROM includes an encyclopedia of I/O cards, an FCC company locator, product demos and references • 625 pages
- Size: 9.0"L x 7.0"W • Weight: 1.8 lbs.

Part No.	Description	1-4	5-9
133794	Modem Technical Guide	$49.95	$44.95

JAMECO RS232 to RS485/422 Bi-directional Converters

- Controlled by RTS signal
- DCE and DTE selectable
- Point to point and multidrop operations
- RS485: terminal block and RJ11 connections
- RS232: DB25 female connector
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Cable length: 4000' maximum
- Includes 9VDC, 200mA power adapter
- Weight: 0.9 lbs. • One-year warranty

117701

European Version!

122956: features RS485SI optical isolation: 2000V
129218: features 220VAC input

Part No.	Description	1-4	5-9
117701	RS232 to 485/422 converter	$49.95	$44.95
122956	RS232 to 485/422 iso. convrtr	99.95	89.95
129218	RS232 to 485/422 (220VAC)	59.95	53.95

Pocket Sized Auto Computer Printer Switches

Connect up to four computers to a printer. Operates on a first-come first-served basis.
- Connectors: two inputs and one output
- Interface: parallel DB25 female
- Two LEDs indicate link status
- Size: 4.0"L x 3.2"W x 1.0"H • Weight: 0.4 lbs.
- Color: beige • One-year warranty (94641)

94641

Part No.	Description	1-4	5-9
94641	2 to 1 auto printer switch	$17.95	$14.95
134033	4 to 1 auto printer switch	SALE	24.95

JAMECO SVGA 4-Channel Splitter

Duplicate a video signal from one source to four monitors up to 210 feet.
- Suitable for SVGA, VGA and multisync monitors
- DA15 female connectors on box • One-year warranty
- Daisy chainable
- Slide switch for video signal gain control
- Includes power adapter 9VDC @ 130mA
- Size: 8.8"L x 6.0"W x 1.9"H • Weight: 3.6 lbs.

Part No.	Description	1-4	5-9
133866	4-channel monitor splitter	$79.95	$71.95

JASCO 2-Line Telephone Adapter

- Allows use of two telephone lines with one phone
- Hold button for each line
- RJ11 6P4C connector
- Both lines may be used simultaneously
- "Y" cable adapter included
- Size: 3.9"W x 3.8"D x 2.2"H • Weight: 0.9 lbs.

Part No.	Description	Price
116804	2-line telephone adapter	SALE $9.95

3-Way Telephone Line Adapter

- Connect two or three devices (e.g. telephone, fax, modem) to one line
- Internal switch prevents interruptions; when one line is in use other lines cannot be used
- For standard telephone lines • Cord length: 6' 7.5"
- Size: 2.5"L x 1.8"W x 0.9"H • Weight: 0.3 lbs.

NEW

Part No.	Description	1-4	5-9
144848	3-way telephone adapter	$14.95	$13.49

2-Way and 4-Way Computer System Sharing Switch Boxes

DA15HD/5-pin DIN/DE9M

- Allows 2 or 4 users to share a system   VALUE
- Each user may need a set of the following cables: P/N 66173, DA15HD M-M for monitor; P/N 114913, 5-pin DIN M-M for keyboard; P/N 132345, DE9 F-F for serial mouse (cables – see page 127)

132249

134017

- Internal diodes maintain keyboard in powered state when switching between systems
- Size: 7.5"L x 5.3"W x 2.8"H

Part No.	Description	Weight (lbs.)	1-9	10-24
132249	2-way switch box	1.6	$19.95	$17.95
134017	4-way switch box	2.3	29.95	26.95

Intelligent Computer Switch Box

Allows one user to access two systems

Switch CPUs by hot keys or by buttons on the unit.
- PC compatible
- Supports SVGA, VGA and multi-sync monitors
- Buzzer sound for switching confirmation
- Three stages: can be cascaded for additional systems (**note after two stages you may require a power adapter on each unit**)
- Auto-scan w/ time interval switches or manual switch
- Size: 8.8"L x 5.9"W x 1.8"H • Weight: 3.3 lbs.
- One-year warranty
- **Recommended cables:**

Cables (pg 127)	Serial port	Keyboard	Monitor
Part Number	(2) 25700	(2) 114913	(2) 66165
Configuration	DE9	5-pin DIN	DA15

Part No.	Description	1-4	5-9
133997	Computer switch box	$149.95	$134.95

PRIMAX Instant Printing Network with up to 16 Computers and one Parallel Printer

VALUE

Now includes print spooling software

111835

111843

- PC/XT/AT/386/486 and compatible computers

Build a printer sharing network by simply plugging a transmitter into the parallel port of each computer and a receiver into the printer and connect up to 1200 feet of easy to route modular telephone-type cable. Requires no software.

Specifications:
- Transmitter connectors: DB25 male, RJ11 female
- Receiver connectors: Centronics male, RJ11 female
- Uses telephone-type cable
- Transmitter includes 25' of cable
- High transfer speed of up to 6,000 cps
- No external power necessary for most applications
- Timeout: 5, 15 or 30 sec.
- Operating mode: first come, first served
- Size: (Transmitter) 3.0"L x 2.5"W x 1.0"H
  (Receiver) 3.3"L x 2.5"W x 1.0"H
- Weight: 0.5 lbs. • Two-year manufacturer's warranty

Part No.	Product No.	Description	Price
111835	ML110	Rec., 36-pin male	SALE $39.95
111843	ML100	Trans., 25-pin male	SALE 39.95

TT SYSTEMS
95 Name and Number Caller ID
See the name and number of the caller, avoid unwanted calls ...plus more!

FTP

- Displays caller information after first ring
- Stores up to 95 names and numbers in the memory
- Indicates out of area and private calls
- Dual call reviewing and easy scrolling forward/reverse
- Time, date, and count of stored calls displayed
- Includes wall mount bracket
- Low battery indicator (9V battery not included)
- **Requires local telephone company caller identification service**
- Size: 5.9"L x 1.5"W x 3.3"H • Weight: 0.7 lbs.

Part No.	Description	1-4	5-9
130788	95 name/number caller ID...	$44.95	$39.95

AASTRA Telephone Call Answer Light
- Multi-function light: flash message waiting; continuously-extension in use; flicker-phone ringing
- Includes wall transformer, phone cable, pen holder, paper tray and instructions
- **Requires local phone company's voice mail service**
- Size: 6.6"L x 4.3"W x 2.5"H • Weight: 1.1 lbs.
- One-year manufacturer's warranty

Part No.	Description	1-4	5-9
134367	Call answer light...	$34.95	$29.95

AASTRA Phone Line Busy Indicator
Perfect for multiple users who share one dedicated phone line to avoid accidental hangups or disconnects.
- Compatible with all network services
- Strictly an indicator – will not interfere with emergency operation of phone line
- Size: 2.3"L x 1.3"W x 0.8"H • Weight: 0.1 lbs.
- One-year manufacturer's warranty

Part No.	Description	1-4	5-9
134261	Phone line indicator...	$12.95	$11.49

AASTRA Busy Line Switch
- Prevents accidental line interruptions when line is currently in use.
- RJ11 6P2C connector
- RJ11 6P2C cable 2' long
- One switch required for each extension phone on line
- Switch allows access to a line currently in use
- Call display and call answer compatible
- Size: 2.1"L x 1.1"W x 0.8"H • Weight: 0.1 lbs.

Part No.	Description	1-4	5-9
120168	Busy line switch...	$12.95	$11.49

Short Haul Modem
FTP
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS232 interface
- Up to 38400 baud
- Will communicate over 6.3 miles (max.) of cable
- Size: 3.0"L x 2.0"W x 1.0"H • Weight: 0.2 lbs.
- One-year warranty

Part No.	Description	1-4	5-9
116581	Short haul modem...	$39.95	$35.95
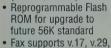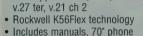
PHOEBE Modems
- PC/XT/AT and compatibles
- Five test feature for fault locating
- Support international CCITT and Bell standards
- Hayes compatible   • FCC compliance
- 100% reliable data transfer with V.42 bis/MNP5 error detection   • One-year warranty

56 kbps Data/Fax Internal/External Modems with Voice Mail and Speakerphone
NEW
- Create many voice and fax mail boxes with individual greetings
- Includes hardware error correction (v.42, MNP 2-4), and data compression (v.42bis, MNP5)
- Reprogrammable Flash ROM for upgrade to future 56K standard
- Fax supports v.17, v.29, v.27 ter, v.21 ch 2
- Rockwell K56Flex technology
- Includes manuals, 70" phone cable, communication software, and 3.5" software driver for Windows® 95/NT 4.0

145023: Internal modem
- 3.5" BitWare for Windows disk
- Size: 7.1"L x 4.3"W • Weight: 1.5 lbs.

145031: External modem
- Supports v.80 video conf. and Rockwell Video Ready
- Includes free multimedia microphone system
- Includes DB25M to DB25F and DE9F, and 27" cable
- 12VAC @ 1A adapter
- 3.5" Super Voice V2.2 software
- Size: 6.0"L x 4.5"W • Weight: 2.6 lbs.

FREE Microphone!

Part No.	Description		Price
145023	Internal 56 kbps modem...	SALE	$109.95
145031	External 56 kbps modem...		129.95

BOCA Research FaxWorks 14.4 kbps Data/Fax Modem with Voice Mail
- Compatible with DOS, Windows® 3.1 and Windows® '95
- Remote message access and fax forwarding
- Includes installation software, manual and cable
- Set up to 1,000 mailboxes   • Two-year warranty
- Size: 6.3"L x 4.3"W • Weight: 1.2 lbs.

Part No.	Description		Price
137998	Int. fax/data/voice modem...	SALE	$44.95

Robotics 14.4 kbps Data/Fax Internal Modem
The Intelligent Choice in Information Access
- Supports 14.4 down to 300 bps of data
- Compatible with ITU-T standard
- System requirements: 486 or Pentium®, Windows® 3.xx to Win® 95, 4MB RAM
- Includes installation software, phone cable and manuals   • One-year warranty
- Size: 5.3"L x 4.0"W • Weight: 1.6 lbs.
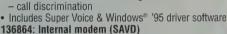
FTP

Part No.	Description		Price
139871	14.4 internal modem...	SALE	$39.95

33.6 kbps Data/Fax Internal/External Modems with Voice Mail and Speakerphone
- Create multiple voice/ fax mail boxes with unique greetings
- Rockwell chipset
- Hardware error correction and data compression
- Supports fax group 3 send and receive rates up to 14,400 bps
- SAVD provides full duplex analog simultaneous audio/voice and data over one phone line and has 8-bit monophonic audio data encoding at 7.2kHz or 11.025kHz with tone detection/generation – call discrimination
- Includes Super Voice & Windows® '95 driver software

136864: Internal modem (SAVD)
- Size: 5.0"L x 4.1"W • Weight: 1.0 lb.

145015: Internal modem
- Size: 7.3"L x 4.3"W • Weight: 1.3 lbs.   FTP

136872: External modem (SAVD)
- Includes DB25 cable and 12VAC @ 1A adapter
- Cable: DB25F & DE9F to DB25M, 24" long
- Size: 5.7"L x 4.5"W x 1.3"H • Weight: 2.7 lbs.

Part No.	Description		Price
136864	Internal 33.6 modem...	SALE	$79.95
145015	Internal 33.6 modem...	Closeout	69.95
136872	External 33.6 modem...	SALE	99.95

33.6 kbps Data/Fax Internal Modem
- Super-fast 33,600 bps data modem and 14,400/ 9600 fax
- Fully compatible with ITU-T V.42, V.42 bis, V.34, V.32 bis, V32, V.22 bis, V.21-23, MNP 2-5 and ITU-T group 3 fax machines
- Includes SuperFax and Windows® '95 driver software
- Size: 5.1"L x 4.2"W • Weight: 1.4 lbs.

US Robotics Compatible!   FTP

Part No.	Description		Price
129672	Internal 33.6 modem...	Closeout	$59.95

14.4 kbps External Fax Modem
- 14.4 kbps V.32 bis data transmission and group III fax
- V.42 bis/MNP class 5 data compression and error correction
- Class 1 or 2 fax command set
- Hayes compatible AT command set
- Includes Cheyenne BitWare software for DOS (3.5" disk), manual, cable and wall transformer
- Size: 7.5"L x 5.3"W • Weight: 2.8 lbs.
- One-year warranty

NEW

Part No.	Description	1-4	5-9
146368	External 14.4 fax modem...	$59.95	$53.95

RACAL V.34 28.8 External Fax/Modem with *QuickLink*
- MNP 10-EC protocol for cellular environment
- DTE interface speeds up to 115.2 kbps
- Pulse and tone dialing
- 4 phone number storage
- Includes AC adapter, modular telephone cord, data/fax software, and line cord adapter
- Size: 4.2"W x 6.7"D x 1.5"H • Weight: 3.9 lbs.

Part No.	Description		Price
141292	MDF V.34 ext. fax/modem...	SALE	$79.95

Modular Data Network Cables Category 5

See page 61 for Bulk Cable

w/o Boot 115721

w/ Boot 124804

124741 124863 124687

- 4 pair • 24 AWG (7 x 43) stranded
- Style 2 wiring • 100MHz • UTP • 8P8C
- Color code for easy wire tracing • Prevent "snags"
- All cables have boots except gray • High-flexibility
- Achieve optimum system performance

Color-coded Patch Cables

Part No.	Description	Color	1-9	10-99	100+
115713	3ft. cable RJ45	Gray†	$2.75	$2.49	$2.25
115721	7ft. cable RJ45	Gray†	3.95	3.49	2.95
115730	15ft. cable RJ45	Gray†	5.95	5.49	4.95
115748	25ft. cable RJ45	Gray†	7.95	6.95	5.95
124724	3ft. cable RJ45	Red	2.95	2.75	2.25
124732	7ft. cable RJ45	Red	3.49	3.25	2.95
124741	15ft. cable RJ45	Red	4.95	4.49	3.49
124847	3ft. cable RJ45	Black	2.95	2.75	2.49
124855	7ft. cable RJ45	Black	3.49	3.25	2.95
124863	15ft. cable RJ45	Black	4.95	4.49	3.95
124804	3ft. cable RJ45	Blue	2.95	2.75	2.49
124812	7ft. cable RJ45	Blue	3.49	3.25	2.95
124687	3ft. cable RJ45	Yellow	2.95	2.75	2.49

†No Boot

ELENCO Telephone Line Analyzer Test Kit

- Connects between telephone and wall jack
- Line test: verifies DC voltage to phone
- Ring test: verifies AC ringing voltage to phone • Black case
- Loop test: verifies condition of line from phone company central office to your wall jack
- Cord test: verifies the condition of your phone cord (if detachable) • Weight: 0.8 lbs.
- Size: 4.4"L x 2.5"W x 1.8"H • One-year warranty

FTP
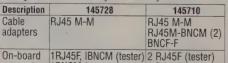
Part No.	Description	1-4	5-9
119378	Line analyzer kit	$24.95	$22.49

LAN Testers with Remotes

Can easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A,TIA568A/568B, token ring, etc. With the remote kit you can test cables installed from a distance either on wall plate or patch panel.

NEW

145710
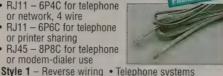
- Check for cable continuity, miswiring, open, short, grounding and pin configurations • CE approved
- Includes manual, zipper case, test cable(s)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.25"W x 1.0"H (Remote)
- Weight: 0.7 lbs. • One-year warranty

FTP
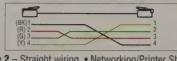
Description	145728	145710
Cable adapters	RJ45 M-M	RJ45 M-M RJ45M-BNCM (2) BNCF-F
On-board connectors	1RJ45F, IBNCM (tester) 1BNCM (remote)	2 RJ45F (tester) 1 RJ45F (remote)

Part No.	Description	Price
145728	Multi-network cable tester pro	$89.95
145710	LanTest cable tester	79.95
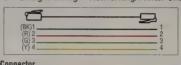
Modular Telephone/Printer Sharing Cables

Low Cost Data/Phone Cables

- RJ11 – 6P4C for telephone or network, 4 wire
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dialer use

Style 1 – Reverse wiring • Telephone systems

```
(BK)1          1
(R) 2          2
(G) 3          3
(Y) 4          4
```

Style 2 – Straight wiring • Networking/Printer Sharing

```
(BK)1          1
(R) 2          2
(G) 3          3
(Y) 4          4
```

Part No.	Connector Style	Type	Length	1-9	10-99	100-249
115545	1	RJ11-6P4C	25ft.	$1.95	$1.49	$1.19
115553	2	RJ11-6P4C	7ft.	.99	.89	.79
115570	2	RJ11-6P4C	25ft.	1.95	1.49	1.25
115588	1	RJ11-6P6C	7ft.	.99	.89	.75
115609	1	RJ11-6P6C	25ft.	Closeout		.99
115617	2	RJ11-6P6C	7ft.	1.49	1.25	.99
115641	1	RJ45-8P8C	7ft.	Closeout		.59
115676	2	RJ45-8P8C	7ft.	1.95	1.49	1.25
115684	2	RJ45-8P8C	14ft.	2.49	2.25	1.75
115692	2	RJ45-8P8C	25ft.	2.95	2.65	2.25

Token Ring RJ45 Adapter

- Use type A or B style data connector with RJ45 jack
- Easy connection to UTP cabling
- Determine own cable length (flexibility)
- Dimensions: 2.5"L x 1.0"W • Weight: 0.1 lbs.

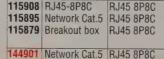| Part No.	Description	1-9	10-24	25-49
125461	Token ring to RJ45	$9.95	$8.95	$7.95

Token Ring Data Connector

- Terminate two twisted-pair wires with grounding shield
- Save on installation time
- Includes 3 types strain relief • Weight: 0.1 lbs.

Part No.	Description	1-9	10-24	25-49
124716	Data connector for cable	$4.95	$4.49	$2.95

Jameco RJ45 and Ethernet Cable Testers

- A majority of new system installation problems are due to cables. Why not pretest cables and reduce installation time with these handy testers?
- Mature system installation will start having intermittent cable problems due to normal wear. Why use expensive on-line system time to troubleshoot cable problems? Try these easy-to-use testers!
- 115879 does not require 9V battery; all others require 9VDC battery as indicated (not included)
- Zipper case included • Size 4.5"L x 2.5"W x 1.3"H • Weight: 0.4 lbs.

115908 115895 115879

Part No.	Description	Connector Type	System Used	Test Performed	Price
115908	RJ45-8P8C	RJ45 8P8C	RJ45 straight, reverse wiring	Miswire, open, short	$29.95
115895	Network Cat.5	RJ45 8P8C	258A, 356A AT&T/Ethernet 10-base-T	Miswire, open, short	29.95
115879	Breakout box	RJ45 8P8C	Ethernet 10-base-T, IBM token ring, EIA/TIA(T568A), AT&T(T568B)	Transmission signal, status access	49.95
144901	Network Cat.5	RJ45 8P8C	Ethernet 10-base-T	Link status, receive data, polarity	159.95

RS232 Modular Jack Adapters

66181 66237

Change your RS232 port to an RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

Part Number	Product Number	Description	1-9	10-99	100+
66181	G9P6	DE9 M to RJ11(6P6C)	$1.95	$1.75	$1.49
66190	G9P8	DE9 M to RJ45(8P8C)	2.49	2.19	1.75
114737	G9S4	DE9 F to RJ11(6P4C)	1.95	1.75	1.49
66202	G9S6	DE9 F to RJ11(6P6C)	1.95	1.75	1.49
66211	G9S8	DE9 F to RJ45(8P8C)	2.49	2.19	1.75
66229	G25P6	DB25 M to RJ11(6P6C)	2.25	1.95	1.59
66237	G25P8	DB25 M to RJ45(8P8C)	2.49	2.19	1.75
114729	G25S4	DB25 F to RJ11(6P4C)	1.95	1.75	.99
66245	G25S6	DB25 F to RJ11(6P6C)	2.25	1.95	1.59
66253	G25S8	DB25 F to RJ45(8P8C)	2.49	2.19	1.75

Jameco Multilink RS232 Tester and Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20 and 22 on the DTE side and DCE side by utilizing red/green bicolor LEDs. Provides signal status at a glance (four states: mark, space, clocking and off). Complete cable "breakout" and reconfiguration exists with 24 in-line switches and 54 in-line machine tool sockets. Includes handy carrying case, 10 jumper wires and a device wiring chart. Cable extends 4" from side of tester.

Connectors: (1) male DB25 and (1) female DB25.
- Cable length: 4" • Weight: 0.3 lbs.
- Size: 3.5"L x 3.3"W x 1.0"H

Part No.	Description	1-4	5-9
25945★	Tester/breakout box	$29.95	$26.95

Jameco Ethernet 10BaseT Hub/Repeaters

NEW

These 5 and 9 port hubs are designed for plug and play installation and easy management. Provide an Uplink connection for your network expansion via RJ45 connector.

- Compliance to IEEE802.3 10Base2 and 10BaseT standard
- LED indicators for each twisted pair port for network line and activity reporting diagnosis
- Compact in design
- Includes BNC T-connector, BNC terminator, AC adapter and manual
- One-year warranty

144944: (5) 10BaseT and (1) 10Base2 ports
- Automatic partitioning function for each port to isolate network failure
- Size: 5.5"L x 4.0"W x 1.3"H • Weight: 1.9 lbs.

144952: (9) 10BaseT and (1) 10Base2 ports
- Networking utilization monitoring by each LEDs to indicate the each percentage of network utilization when hub is activated
- Size: 7.5"L x 4.3"W x 1.3"H • Weight: 2.1 lbs.

Part No.	Description	Price
144944	5-port mini-hub/repeater	$69.95
144952	9-port hub repeater	89.95

Jameco Ethernet Mini 5-Port 10BaseT Hub

An economical way to connect network devices using twisted-pair (10BaseT) Ethernet cabling.

- UTP star configuration (see opposite page for cable)
- Has "Uplink" connector for cascading hubs
- Can be powered off a keyboard with adapter (not included) or via included wall transformer 7.5VDC @ 900mA • Includes wall mount bracket
- LEDs: power, collision and TX/RX for each port
- One-year warranty • Size: 5.4"L x 3.4"W x 1.5"H
- Weight: 1.7 lbs.

Part No.	Description	1-4	5-9
134404	10BaseT mini 5-port hub	$69.95	$62.95

Jameco Ethernet 10BaseT Hubs

These 5 and 9 port hubs simplify the implementation of twisted-pair Ethernet networks following IEEE-802.3 10Mbps CSMA/CD standard.

- Topology: UTP star
- Maximum distance: 325' • Software independent
- Cable: see style-2 RJ45 cable (opposite page)
- Includes AC power adapter, wall mounting bracket and manual • One-year warranty

130278: 10BaseT 5-port hub
- Size: 4.7"L x 3.0"W x 1.0"H • Weight: 1.7 lbs.

130286: 10BaseT 9-port hub
- BNC cascade (see pg 47 for for BNC T adapters and 50Ω terminators)
- Size: 7.3"L x 3.7"W x 1.0"H • Weight: 2.5 lbs.

Part No.	Description	Price
130278	10BaseT 5-port hub	$69.95
130286	10BaseT 9-port hub	109.95

ISA UTP/BNC Ethernet Card

NEW

- Software supports Novell, Microsoft LAN Manager, Windows® NT, Windows® for Workgroups, Windows® 95 (Plug and Play)
- Self-diagnostics for easy troubleshooting
- NE2000 compatible
- Power management supports green indicators for energy saving • IRQ: 2, 3, 4, 5, 10, 11, 12, 15
- I/O base address: 200H - 3E0H, 240H, 280H, 2C0H, 300H, 320H • FCC Certified
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
144936	ISA UTP/BNC Ethernet card	$24.95	$22.49

PCMCIA Type II Combo BNC/UTP Ethernet Card **FTP**

- Minimum requirements: IBM compatible PC with 386SX, one type II PCMCIA socket, BNC/UTP Ethernet connectivity, PCMCIA release 2.1 compliant card services
- 10Mbps speed in 10BaseT and 10Base2 format
- Supports Novell Netware 3.x/4.x, Microsoft LAN manager, Windows® for Workgroups 3.11, Windows® 3.1 and Windows® NT 3.51, Windows® 95 and packet driver
- Includes BNC/UTP connector, manual & driver diskette
- Weight: 0.8 lbs. • One-year warranty

Part No.	Description	Price
132581	PCMCIA network card	$99.95

10Base2/10BaseT Print Server

LANPrint is the easiest and most practical device you can add to your network. Connect a printer anywhere on a NetWare Ethernet network. Connect LANPrint directly to the parallel port of any Centronics compatible parallel printer. Then provide a connection to a network trunk segment, run the LANPrint Easy Install software program to configure the LANPrint print server to register the device to network server print queues and its up and running.

- Support systems: TYPE-I: supports Novell NetWare; NetWare 2.x, 3.x and 4.x using bindery emulation; supports up to 16 print queues on 8 file servers; print methods: PSERVER.EXE, RPRINTER.EXE, NPRINTER.EXE, Windows® NT compatible
- Approvals: product approval: FCC class A, CSA, TUV, CE Mark and UL; Novell, YES "It runs with NetWare" certification • One-year warranty
- Power: 6VDC @ 500mA included
- Includes manual, software, printer cable and TEE
- Size: 4.7"L x 3.0"W x 1.0"H • Weight: 1.8 lbs.

Part No.	Product No.	Description	Price
137251	JE5031	Print server	$139.95

Jameco Ethernet 10Base5 to 10BaseT Transceiver

- For 10Mbit/sec. CSMA/CD LAN
- FCC class A approved
- LED indicators for power, link, receive and collision
- Size: 2.7"L x 1.6"W x 0.8"H
- Weight: 0.3 lbs. • One-year warranty

Part No.	Product No.	Description	1-4	5-9
130315	JE5001	10BaseT transceiver	$29.95	$26.95

Jameco Network Cards

These full featured cards will provide optimum performance for your network in accordance with Ethernet and IEEE-802.3.

ISA Plug-and-Play UTP Ethernet Card

- Supports Microsoft's® plug and play for jumperless mode as well as non-plug and play PCs (Win® 3.11 & Win® 95 compatible)
- Friendly setup program with diagnostic function
- On board socket for BOOT ROM
- Support traffic LEDs for transmit/receive **FTP**
- IRQs: 2/9, 3, 4, 5, 10, 11, 12, 15
- Software compatible with NE2000 driver
- Reconfigurable settings to solve conflicts
- 10BaseT has automatic detection/correction of received polarity
- FCC approved • Weight 0.4 lbs.

Part No.	Product No.	Description	1-4	5-9
133022	JE5029	Card for 10BaseT	$29.95	$26.95

ISA Plug-and-Play Combo BNC/UTP/AUI Ethernet Card

- Supports Microsoft's® plug and play for jumperless mode as well as non-plug and play PCs (Win® 3.11 & Win® 95 compatible)
- Full-Duplex Ethernet function to double channel bandwidth
- Diagnostic LEDs for TX/RX, collision and link
- Supports IRQs: 2/9, 3, 4, 5, 10, 11, 12, 15
- I/O address select: 200H, 220H, 240H, 260H, 280H, 2A0H, 2C0H, 2E0H, 300H, 320H, 340H, 360H, 380H, 3A0H, 3B0H, 3E0H
- On-board socket for remote BOOT ROM
- Supports 16K, 32K, 64K and 16K page mode access to BOOT ROM
- Weight: 0.6 lbs. • One-year warranty

Part No.	Product No.	Description	Price
130235	JE5021	ISA combo card	$34.95

PCI-Bus BNC/UTP/AUI Combo Ethernet Card

- 32-bit interface with full-duplex for simultaneous TX/RX with slave-mode operation (Win® 3.11 & Win® 95 compatible)
- PCI system BIOS automatically detects BOOT ROM and I/O port addresses
- Supports PCI clock speeds to 33MHz
- Diagnostic LEDs for TX/RX, collision and link
- On-board socket for remote BOOT ROM
- Supports 8K, 16K and 32K access to BOOT ROM
- Use IRQ5 in different PCI configurations
- Interrupt line: INTA, mapped to BIOS
- Weight: 0.6 lbs. • One-year warranty

Part No.	Product No.	Description	Price
130251	JE5020	PCI combo card	$49.95

19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.
- All sides have ventilation holes
- Front and back panels are 0.05" aluminum for easy custom design
- Top, bottom, sides durable 0.035" steel
- 19" long front panels
- All enclosures have handles except P/N 132812

Physical Specifications

Part No.	Case Dimensions (inches)						Weight (lbs.)
	Front Panel			Inside Chasis			
	W1	D1	H1	W2	D2	H2	
132812	19	.12	1.73	17	9.75	1.25	6.2
132821	19	.12	3.46	17	9.75	3.00	7.9
132839	19	.12	3.46	17	11.75	2.88	9.1
132847	19	.12	5.22	17	11.75	4.75	10.5
132855	19	.12	5.22	17	13.50	4.75	11.8
132863	19	.12	8.56	17	13.50	8.00	15.4

Part No.	Product No.	Description	1-9	10-24
132812	ET125	1U enclosure	$39.95	$35.95
132821	ET225	2U enclosure	44.95	39.95
132839	ET230	2U enclosure	54.95	49.95
132847	ET330	3U enclosure	59.95	53.95
132855	ET335	3U enclosure **SALE**	62.95	55.95
132863	ET535	5U enclosure	89.95	79.95

19" Industrial Chassis

Ideal for today's most hostile work environments.
- Use with 14-slot PC-BUS compatible backplane P/N 135061 (bottom right)
- Meets EIA RS-310 C standards CE
- Supports one 3.5" and two 5.25" external accessible bays and two 3.5" internal bays
- Removable disk drive bay with shock resistant design
- Front 12VDC cooling fan with removable air filter screen and mesh • Waterproof front panel
- Requires power supply P/N 132185 or 132361 (pg 99)
- Includes mounting hardware
- Size: 16.8"L x 16.9"W x 7.0"H • Weight: 36.0 lbs.
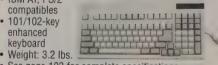
Part No.	Description	Price
135095	19" industrial chassis	$329.95
146851	19" chassis w/ 300W power supp.	399.95

AXIOM Water Resistant Keyboard

- IBM AT, PS/2 compatibles
- 101/102-key enhanced keyboard
- Weight: 3.2 lbs.
- See page 103 for complete specifications

Part No.	Description	Price
141866	Water resistant keyboard **SALE**	$119.95

19" Rack Mount Monitor Enclosure

Vented enclosure will protect your monitor from hostile environments.
- Fit: for standard 14" monitor
- Hinged door for accessing monitor controls
- Includes rubber adhesive feet and mounting screws
- Size: 19.0"W x 15.1"D x 14.0"H • Weight: 30 lbs.

Part No.	Description	Price
136021	19" rack mount enclosure **SALE**	$269.95

Embedded CPU Card for Intel Pentium® Processor

Industry wide compatibility.
- Microprocessor: Intel Pentium® 75/90/100/133/166MHz processor (not included – pg 13)   **135044**   *133MHz Pentium® for under $550!*
- System memory: 8-128MB, 4 socket for 72-pin SIMM (not included – pg 16)
- Cache size: pipelined burst sync/async cache module slot, up to 512KB • 128KB Award licensed BIOS
- Two RS232 serial ports (16550 compatible includes FIFO)
- One multi-mode parallel port (SPP/EPP/ECP)
- Two PCI IDE ports, up to 4 IDE drives
- Floppy drive interface: up to two 2.88MB drives
- Watchdog timer: 0.5/1/2/4 sec time-out period selectable
- Built-in PC-104 expansion bus connector
- Includes cables, headers and four 1" hex standoffs
- Includes manual • Board size: 13.4"L x 4.9"W
- Weight: 3.2 lbs. • One-year warranty

PCI-VGA Daughterboard
- 1MB video RAM-upgradeable to 2MB using two P/N 128688 (pg 16) • Weight: 0.7 lbs.
- Includes drivers for Windows® 3.1/95, OS/2 and NT

Part No.	Description	Price
135044	Pentium® embedded motherboard	$399.95
130833	133MHz Pentium® MPU chip	129.95
135036	VGA daughterboard card	149.95

Relay Panels & Rack

19" Wide Panels:
- 10 gauge black aluminum
- One-year warranty
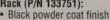
133276/133516/133524

Rack (P/N 133751):
- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels   **133751**
- 16 gauge CRS base
- 1/8" aluminum side rails
- Size: 19.8"W x 15.3"D x 84"H (at base)
- Weight: 18.9 lbs. • One-year warranty

Part No.	Description	Weight	Price
133276	Rack panel - 1.75"H	0.4 lbs.	$9.95
133516	Rack panel - 3.50"H	0.8 lbs.	14.95
133524	Rack panel - 5.50"H	1.2 lbs.	19.95
133751	Relay rack - 84"H	21.8 lbs.	149.95

16-Bit ISA 14-Slot Backplane

- Fourteen ISA slots
- Keyboard connectors: 5-pin DIN and two passive 5-pin keyboard connectors
- Standard PC power connector or screw terminal posts
- Weight: 1.7 lbs. • Size: 12.1"L x 6.8"W
- One-year warranty

Part No.	Description	Price
135052	14-slot ISA backplane	$79.95

16-Bit PCI-ISA-PICMG Passive 14-Slot Backplane

- Ten 16-bit ISA slots, four PCI slots and two PICMG (48-bit) slots
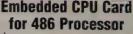- LEDs for ±5 and ±12 volts
- Keyboard connectors: 5-pin DIN and two 5-pin passive keyboard connectors
- Standard PC power connector or screw terminal posts
- One-year warranty
- Weight: 1.9 lbs. • Size: 12.5"L x 10.0"W

Part No.	Description	Price
135061	PCI 16-bit backplane	$129.95

Embedded CPU Card for 486 Processor
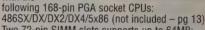
For use with passive back plane (P/N 135052 and 135061).
- Award BIOS
- 256K cache on board
- Compatible with the following 168-pin PGA socket CPUs: 486SX/DX/DX2/DX4/5x86 (not included – pg 13)
- Two 72-pin SIMM slots supports up to 64MB: 4MB – P/N 75117, 8MB – P/N 75213, and 16MB – P/N 75168 (pg 16)
- On board connectors and ports: keyboard, power, COM1, COM2, hard/floppy drive (supports two of each), printer port
- Bus support: external ISA bus, internal PCI bus for IDE and PC-104 bus • Watchdog port addressable
- Serial ports: two high speed 16550 UARTs with 16-byte FIFOs which are MIDI compatible
- System power requirement: +5V @ 5A
- Includes cables, driver utility (3.5" disk) and manual
- Board size: 7.2"L x 4.8"W
- Weight: 1.7 lbs. • One-year warranty

Part No.	Description	Price
133241	Embedded CPU card **SALE**	$299.95

AXIOM 48-Bit Digital I/O Card

- Low cost IBM PC/XT/AT compatible DI/O card
- 48 TTL/DTL compatible digital I/O lines arranged into 8-bit ports
- Software programmable for inputs/outputs
- Emulates 8255 PPI mode 0
- Buffer circuit provides the high sinking current capacity
- Interrupt options: jumper-selectable to level 2, 3, 4, 5, 6 or 7
- Added pull-up resistor: CMOS/DRY CONTACT compatible
- Power requirement: +5VDC @ 1.6A max.
- Size: 10.2"L x 3.9"W • Weight: 1.2 lbs.
- One-year warranty

Part No.	Product No.	Description	Price
136784	AX5214	48-bit digital I/O card	$99.95

AXIOM GPIB Interface Card

- On-board firmware ROM callable for user's application program
- Complete Listener/Talker/Controller (LTC) capability using the NEC µPD7210 GPIB TLC chip
- Data transfer rate over 300K bytes/sec.
- Half-sized board fits any I/O slot or laptop PC
- 6 interrupt levels
- RF-shielded IEEE-488 receptable
- Selection of 3 DMA channels using host DMA controller
- Size: 5.0"L x 4.2"W • Weight: 1.6 lbs.
- One-year warranty

Part No.	Product No.	Description	Price
136696	AX5488	GPIB interface card	$199.95

High Performance DAS Card and Software

See page 72 for low-cost Data Acquisition kit

A total data acquisition and control solution for under $450! This package includes the PCL-818LS multi-I/O card and terminal board, plus Genie Lite data acquisition software for Windows®.

- Either 16 single-ended or 8 differential bipolar analog inputs
- One analog output
- 32 channel digital I/O (16 in, 16 out)
- 12-bit A/D, up to 40kHz sampling rate with DMA transfer • Timer counter
- Programmable gain on all analog inputs
- Weight: 6.4 lbs. • One-year warranty

Supervisory **C**ontrol **A**nd **D**ata **A**cquisition

Part No.	Product No.	Description	Price
127431	PCL818LS/GL	Data solution	$449.95
139723	PCLS920	Genie Full Software	649.95

Four Port RS232/RS422/RS485 Serial Interface Card

The PCL-746+ is a 4-port serial communications interface card. Each port can be configured individually to either RS232, RS422, or RS485 using on-board jumpers. The card uses 16C550 UARTs and improved interrupt handling for reliable operation at transmission speeds of up to 115.2 Kbps.

- IRQ selection: 3, 4, 5, 7, 9, 10, 11, 12, or 15
- Data bits: 5, 6, 7, 8 • Stop bits: 1, 1.5, 2
- Parity: even, odd, none
- Includes manual, 11.8" (30-cm) long cable w/ DC37 to (4) DB25 connectors and PC-ComLib software
- Weight: 2.0 lbs. • One-year warranty

Part No.	Product No.	Description	Price
127474	PCL746+	Communication card	$249.95

PCMCIA Serial Card

- 16C550 UART with 16-byte FIFO buffer
- User selectable addresses and IRQ (including COM3, COM4)
- Low power consumption
- Two DE9 connectors
- 50~115.2 Kbps baud rate
- Two full featured RS232 ports
- Includes PC-ComLIB software
- Weight: 0.4 lbs. • One-year warranty

Part No.	Product No.	Description	Price
127440	COMPAD32	PCMCIA RS232 card	$249.95

PCMCIA DAS Card

The Portable Data Acquisition Solution!

The PCIA-71B is a high gain, low input PCMCIA type II DAS card which allows direct sensor input.

- 12-bit ADC, 30kHz data transfer
- ±10V or 0~10V input range
- Programmable gain: 1, 10, 100, 1000 (71B) • Eight differential input channels
- 4 digital outputs and 4 digital inputs, TTL compatible
- C and BASIC drivers included
- Weight: 1.3 lbs. • One-year warranty

Part No.	Product No.	Description	Price
136426	PCIA71B	PCMCIA DAS card	$529.95

RMV electronics inc Stepper Motor Control and Data Acquisition Boards

- 3 wire serial port (Rx, Tx and GND) configurable to any standard baud rate in the 300-115200 range (N,8,1)
- Three 8/10/12 bit ports (PA/PB & PC) configurable pin for pin as inputs or outputs
- Edge triggered multiple interrupt pins (IRQH & IRQL)
- Three stepper motor ports with all the necessary logic to implement monophasic, biphasic and half-step stepping modes
- Connectors not included • Includes manual
- Size: 6.0"L x 2.6"W • Weight: 0.2 lbs.
- One-year warranty

109911 Shown with connectors

Part No.	Description	Price
109911	8-bit step.motor cont./ADC board	$124.95
112117	10-bit step.motor cont./ADC board	134.95
140484	12-bit step.motor cont./ADC board	149.95

ADAM Remote Data Acquisition and Control Modules

ADAM modules are compact, intelligent sensor-to-computer interface units designed specifically for reliable operation in harsh environments. • Weight: 0.7 lbs.
- One-year warranty

Additional modules available! Call to special order!

Part No.	Product No.	Description	Price
129525	ADAM4520	Isolated converter	$119.95
129533	ADAM4050	Digital I/O module	149.95
129541	ADAM4021	Analog output module	199.95
129550	ADAM4017	8-ch. analog input module	269.95
129630	—	User's manual (1.0 lb.)	10.95

RS232/RS422/RS485/ Current-Loop Serial Interface Card

- RS232, RS422, RS485 or current-loop interface
- 16C550 UART with 16-byte FIFO
- Transmission speeds up to 115 Kbps
- Flexible I/O address and IRQ selection
- IRQ: 3, 4, 5, 6, 7, 9, 10, 11, 12 or 15
- Supports 2 or 4 wire operation for RS422/485
- Supports COM1, COM2, COM3, or COM4
- PC-ComLIB software included
- Weight: 1.0 lb. • One-year warranty

Part No.	Product No.	Description	Price
136362	PCL740	Communication card	$119.95

Relay Actuator and Isolated D/I Card

- 8 SPDT electromechanical relay actuator outputs, 120VAC @ .5A or 30VDC @ 1A
- 8 opto-isolated digital inputs
- LED indicators to show activated relays
- Jumper selectable isolated/non-isolated input signals
- On-board relay driver circuits • Includes manual
- 37-pin female D-sub connector • One-year warranty
- Includes matching male connector, ready to wire
- Easy to use and program • Weight: 1.0 lb.

Part No.	Product No.	Description	Price
125655	PCL725	Relay & D/I card	$169.95

PC-MultiLab Card

The Perfect Solution for Your PC-Based Engineering I/O Needs... PC-Lab Cards

For programmable voltage output and measurement, transducer interfacing, waveform recording, contact closure monitoring and relay control.

- 8 A/D inputs with 12-bit resolution
- 32 digital I/O, TTL compatible (16 in, 16 out)
- ±5V A/D input range
- 20-point wiring terminal daughterboard
- 25kHz maximum A/D sampling rate
- One D/A output, double buffered
- Includes software utility diskette w/ DOS drivers
- Weight: 2.5 lbs. • One-year warranty

Part No.	Product No.	Description	Price
28290	PCL711S	PC-MultiLab card	$299.95

64-Bit DI/O & Counter Card

- PC/XT/AT (286, 386, 486) compat.
- 64 digital I/O channels (32 in, 32 out)
- Low input loading
- High output driving capacity
- 3-channel programmable interval timer
- On-board crystal based clock source
- Breadboard area for customized circuits
- Event and frequency counting
- Weight: 0.9 lbs. • One-year warranty

Part No.	Product No.	Description	Price
120192	PCL720	I/O and counter	$159.95

24-Bit Digital I/O Card

- PC/XT/AT (286, 386, 486) compatibles
- 24 TTL digital I/O lines
- Opto-22 compatible 50-pin connector
- Interrupt handling
- Parallel data transfer
- Emulates mode 0 of 8255 PPI
- TTL, DTL and CMOS logic signal sensing
- Relay and switch monitoring and control
- Weight: 0.8 lbs. • One-year warranty

Part No.	Product No.	Description	Price
120213	PCL724	Digital I/O card	$89.95

Dual-Port RS422/485 Cards

This new upgraded card offers the 16C550 UART that buffers data into 16-byte packets drastically reducing CPU load and increasing efficiency at up to 115 Kbps.

136434

- 2 or 4 wire operation in RS422/485 modes
- Supports Tx, Rx, RTS and CTS signals
- IRQ: 3, 4, 5, 6, 7, 9, 10, 11, 12 or 15
- I/O addressing from 200H to 3F8H
- Selectable as COM 1-4
- P/N 136434 utilizes on-board optical isolators to eliminate ground loops for reliability in harsh env.
- Includes PC-ComLIB software
- Weight: 1.0 lb. • One-year warranty

Part No.	Product No.	Description	Price
120205	PCL743B	RS422/485 card	$119.95
136434	PCL745B	RS422/485 card	159.95

Macintosh® 105-Key Keyboard

- Enhanced 105-key layout • ADB compatible
- Special "key-click" touch; positive feedback for faster, more accurate typing
- Cable included • One-year warranty
- Size: 18.8"L x 7.8"W x 2.1"H • Weight: 2.7 lbs.

Part No.	Description	1-4	5-9
123692	Macintosh keyboard	$49.95	$44.95

SCSI PowerBook Adapter

- Adapts a 25-pin D-subminiature to a PowerBook SCSI interface
- Color: black
- Size: 2.3"L x 2.2"W x 0.9"H
- Weight: 0.1 lbs.

Part No.	Description	1-9	10-49
125268	SCSI PowerBook adapter	$19.95	$17.95

Mac to IBM Monitor Adapters

Allows use of Macintosh® computer with IBM monitor (DA-15 male to HD-15 female).

126439:
- 10 position DIP-switch supports 6 kinds of signal modes and resolutions
- Size: 2.0"L x 1.5"W
- Weight: 0.2 lbs.
- One-year warranty

119538:
- For Power Macintosh® 6100 and 7100 computers
- Size: 2.2"L x 1.6"W
- Weight: 0.1 lbs.

Part No.	Description	1-9	10-24
126439	Mac to IBM adapter	$9.95	$8.95
119538	PPC 6100/7100 to IBM adapter	5.95	5.35

Jameco Extended 80 Column and 64KB RAM Card for Apple® IIe

- Doubles the amount of space to 64KB RAM
- Double high resolution graphics capability
- Data included
- Compatible with AppleWorks
- Weight: 0.3 lbs. • One-year warranty

Part No.	Product No.	Description	Price
21733	JE864	64KB RAM card.. Closeout	$19.95

SOLTEK Cordless Phone by AT&T

- Two channel operation with LED indicators
- Tone/pulse dialing
- Redial, speed dial and mute buttons
- Operating range: approx. 100 yards
- Telescopic antenna
- Built in 120V power cord w/ adapter 12VDC @ 200 mA
- Two-tone gray color • Factory reconditioned
- Base size: 8.5"L x 5.0"W x 1.5"H • UL approved
- Weight: 1.3 lbs. • 90-day warranty

AT&T Model 5200

Part No.	Description	Price
133743	Cordless phone (70 avail.) Closeout	$29.95

Jameco Switching Power Supplies for Apple® II, II+ and IIe

- **Part No. 22269:** 60 watts
  +5V @ 5A, +12V @ 2.5A, -5V @ 0.5A, -12V @ 0.5A
- **Part No. 105540:** 83 watts
  +5V @ 6A, +12V @ 3A, -5V @ 1A, -12V @ 1A
- Fully regulated output • 110V/220V switchable
- Apple® type plug-in power cord included
- Can drive four floppy disk drives and up to eight expansion cards
- Short circuit and overload protection
- Fits inside the Apple® II, II+ and IIe
- Same physical size as original power supplies
- Size: 9.5"L x 3.6"W x 2.2"H • Weight: 2.5 lbs. • Data included • One-year warranty

Upgrade!

Part No.	Product No.	Description	1-4	5-9	10-24
22269	KHP4007	60W switching power supply for Apple® II, II+ and IIe	$49.95	$44.95	$37.95
105540	PSA83	83W switching power supply for Apple® II, II+ and IIe	59.95	53.95	47.95

Macintosh® Mouse

- High 20 to 6,400 dpi resolution
- Stainless steel low friction rollers
- ADB (Apple Desktop Bus) connection
- Weight: 0.4 lbs.
- One-year warranty

Part No.	Description	1-4	5-9	10-24
119327	Mac Mouse	$19.95	$17.95	$15.95

Macintosh® Ergonomic Mouse

- ADB (Apple Desktop Bus) compatible
- Comfortable ergonomic design
- Left button primary, right button drag lock/release
- Weight: 0.3 lbs.
- One-year warranty

Part No.	Description	1-4	5-9
126105	Mac ergo mouse	$24.95	$22.95

Replacement Battery

- Voltage: 3.6V • Amps: .85Ah
- Diameter: .579" • Style: half AA
- Connection: Macintosh®

Part No.	Product No.	Description	1-9	10-24
126754	TL5101S	Tadiran lithium bat.	$8.95	$7.95

Jameco Switching Power Supply for Apple® IIGS

- Fully regulated +5VDC @ 6A, +12VDC @ 2A, -5VDC @ 0.5A, -12VDC @ 0.5A
- 60 watts
- Input voltage: 115VAC
- 5.5' three pronged removable power cord included
- 4 mounting holes
- Data included
- 6" output cable with 7-pin Molex connector
- Size: 11.3"L x 3.4"W x 2.2"H
- Weight: 2.3 lbs. • One-year warranty

Part No.	Description	1-4	5-9	10-24
85518	Apple IIGS pwr. supply	$59.95	53.95	$45.95

Macintosh® Trackball

- Space saving alternative to mouse
- Tactile buttons
- ADB port compatible
- Ergonomic shape
- Rugged opto-mechanical mechanism
- Weight: 0.9 lbs.
- Size: 5.7"L x 4.8"W x 2.0"H • One-year warranty

Part No.	Description	1-4	5-9
120441	Mac trackball	SALE	$34.95

Apple Macintosh® Cable Guide

130016   10604   10591   73306

SCSI

Part No.	Description	1-9	10-49
130016	6' Centronics 50M to 50M – double shield FTP	Closeout	$7.95
73162	6' Centronics 50M to 50M	9.95	7.95
130032	6' SCSI-I DB25M to 50M Centronics FTP	5.95	5.49
72848	1.5' 50-pin SCSI socket ribbon cable	3.95	3.49
125250	Cent. 50 M SCSI-I (1) to Cent. 50 F SCSI-I (2) "T" SALE	10.95	
129971	SCSI-I terminator	4.95	4.49

PowerBook SCSI

Part No.	Description	1-9	10-49
125268	DB25F to HDI-30M adapter	$19.95	$17.95

Switch Box

Part No.	Description	1-9	10-49
127845	6' 8-pin mini DIN, M to M	$4.95	$4.49

Printer/Modem

Part No.	Description	1-9	10-49
10604	6' mini DIN8M to mini DIN8M FTP	$4.95	$4.49
130024	10' mini DIN8M to mini DIN8M FTP	5.95	5.49
24686	6' DB25M to mini DIN8M for Laser Writer I Closeout		1.95
117006	6' DB25M to mini DIN8M for modem and Laser Writer II FTP Closeout		2.49
10591	6' DB25M to mini DIN8M for Hayes modem FTP	4.95	4.49

Network Kits

Part No.	Description	1-9	10-49
73306	8-pin mini DIN AppleTalk kit	$13.95	$9.95
73269	8-pin mini DIN RJ11 PhoneNet kit	13.95	12.49

JAMECO
$1.39 Sale price good at this quantity only
SALE Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
OEM Pricing Available!

Jameco Tri-Port Serial Adapter

- Great for remote monitoring of RS232 signals
- Connectors: one DB25 female, one DB25 male and one DE9 male
- Gold plated contacts • Wt.: 0.1 lbs.
- Materials: connector shells are metal

VALUE

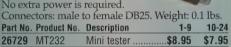| Part No.	Description	1-9	10-24
105195	Tri-Port serial adapter	$8.95	$7.95

Jameco RS232 Interface Check Tester

Check tester identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19 and 20. Connectors: male to female DB25

Part No.	Product No.	Description	1-9	10-24
14285	CT232★	Check tester	$9.95	$8.95

Jameco RS232 Mini Tester

Tests any RS232 (DB25) interface and helps to identify equipment that has failed. Seven bi-color LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25. Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-24
26729	MT232	Mini tester	$8.95	$7.95

Jameco RS232 Loopback Tester

Use for diagnostic testing of RS232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20 and 15 to 17. The tester acts as a data verifier by sending data back to the transmission device. Connectors: male to female DB25. Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-24
22728	LBT	Loopback tester **SALE**		$6.95

Jameco Miniature RS232 Breakout Box

Design new interfaces or modify old ones quickly and easily. Completely self-contained, these boxes include (25) 22 AWG wire jumpers and machine tool sockets. Connectors: male to female DB25

Part No.	Product No.	Description	1-9	10-24
11181	BBMF★	Breakout box	$8.95	$7.95

MARTEL ELECTRONICS Instant Interface®

Analog to RS232

Computerize your analog products!
The Instant Interface® offers an easy way to interface analog signals along with six channels of digital I/O to a host computer. The module's internal A/D converters provide four input channels and 8 bits of resolution. Each channel can be scaled to accept virtually any analog input.

- Application software included to data log, control setpoints, or scale input data into application specific engineering units (e.g.: °F, PSI)
- RS232 interface • Weight: 0.4 lbs.

Part No.	Description	1-4	5-9
123887	Digital I/O analog interface	$129.95	$119.95

Jameco D-Sub 9-Pin to 25-Pin Serial Adapters

- Weight: 0.1 lbs.

10305: For use in AT or other computer systems that have 9-pin D-sub serial ports.
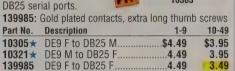
10321: For PC/XT computer systems which have DB25 serial ports.

FTP

139985: Gold plated contacts, extra long thumb screws

Part No.	Description	1-9	10-49
10305★	DE9 F to DB25 M	$4.49	$3.95
10321★	DE9 M to DB25 F	4.49	3.95
139985	DE9 F to DB25 F	4.49	3.49

Jameco D-Sub 9-Pin to 15-Pin Monitor Adapter Kit

- Kit contains all components necessary to build a snap-together 9 to 15-pin monitor adapter, using the manufacturer's pin-out information
- Because of the variety of different VGA systems, pin configurations vary from manufacturer to manufacturer • No soldering is required
- Connectors: female DE9 to male DA15 high density
- Weight: 0.06 lbs.

Part No.	Description	1-9	10-49
10292	Monitor adapter kit	$4.49	$3.25

Jameco Full Handshaking Null Modem Adapters

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily. Internal pin configuration:
- Weight: 0.1 lbs.

26260/17224: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20.

26243: 1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7.

FTP

Part No.	Description	1-9	10-49
26260	DB25 M to DB25 M	$4.49	$3.95
26243★	DB25 M to DB25 F	4.49	3.95
17224	DB25 F to DB25 F	4.49	3.95

Jameco PS/2 Port to AT Compatible Serial Mouse Adapter

PS/2 and compatibles. Allows you to use an AT compatible serial mouse with a PS/2 computer. One male D-sub 9-pin connector. One male 6-pin mini DIN connector. Two retaining screws secure the connector in place. Retaining screws have plastic handles for easy attachment.
- Color: beige • Size: 1.6"L x 1.3"W • Weight: 0.1 lbs.

Part No.	Description	1-9	10-49
100335	Serial mouse adapter	$3.95	$3.49

Jameco VGA Adapter

- Adapts 15-pin VGA to 9-pin output
- Male DA15 to female DE9 adapter
- Weight: 0.1 lbs.

Part No.	Description	1-9	10-49
75264	VGA adapter	$4.49	$3.95

Jameco Slim-Line Gender Changers and Cable Interfaces

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All metal cases.
- Weight: 0.04 lbs.

Standard & Monitor Gender Changers
- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

Network Cable Interface (P/N 117735)
- Captive lock connector with slide lock
- Adapts screw-on style to slide-lock style

Part No.	Description	1-9	10-49
18497★	D-sub 9-pin male	$3.49	$2.95
18489★	D-sub 9-pin female	3.49	2.95
56071	D-sub 15-pin male	3.95	2.49
56063	D-sub 15-pin female	3.95	1.95
119319	D-sub 15-pin female HD	3.95	3.49
119301	D-sub 15-pin male HD	3.95	3.49
18446★	D-sub 25-pin male	3.95	3.49
18420★	D-sub 25-pin female	3.95	3.49
117735	D-sub 15-pin network cable interface – male to female	3.95	2.95

Jameco Standard D-Sub Gender Changers **VALUE**

Standard 9, 25-pin and D-subminiature male and female gender changers for interfacing two cables or connectors of the same gender.
- Weight: 0.1 lbs.

Part No.	Description	1-9	10-49
16635	D-sub 9-pin male	$3.95	$3.49
16643	D-sub 9-pin female	3.95	3.49
22058	D-sub 25-pin male	3.95	3.49
22074	D-sub 25-pin female	3.95	3.49

Jameco IEEE-488 to Centronics Converter Adapter

- Allows printing from an IEEE-488 device to a parallel printer
- Uses a 9VDC, 200mA wall transformer (included)
- IEEE-488 24-pin female input connector
- Centronics 36-pin male output connector
- DIP switch configurable to 31 IEEE-488 addresses
- Size: 4.0"L x 2.5"W x 1.0"H
- Weight: 0.9 lbs. • One-year warranty

Part No.	Description	1-4	5-9
122964	IEEE to Centronics converter	$59.95	$53.95

Universal Serial Bus Cables NEW

Part No.	Description	1-9	10-24
144813	USB 4-pin female, series A, panel mount	$7.95	$6.95
144805	USB 4-pin female, series A to series B, 6'	7.95	6.95
144821	USB 4-pin female, series A, 6'	6.95	6.25
144830	USB 4-pin female to 5-pin .100" female, series A, 6'	6.95	6.25

IEEE-1284 Compliant Enhanced Parallel Cable

Reduced Pricing

The IEEE-1284 is the newest standard in high speed printing. Compatible with bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.

- Double shielded with 28 AWG stranded twisted pair inner conductors
- Molded shells, PVC plastic
- Color: light gray • Length: 6' • Weight: 0.6 lbs.

Part No.	Description	1-9	10-24
130067	DB25M to Centronics 36M	$9.95	$8.95

Jameco IEEE-488 Cables

Three different styles of cables are offered allowing flexibility in developing an IEEE-488 general purpose instrument bus (GPIB). A variety of cable lengths are offered for each type to ensure that the IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices).

- 24-pin IEEE-488 connectors • Color: gray

GPIB/GPIB

These cables are the standard IEEE-488 cables having stackable GPIB connectors on both ends.

Part No.	Description	Wt. (lbs.)	1-4	5-9
73154	1 meter IEEE-488	0.8	$29.95	$26.95
115781	2 meter IEEE-488	1.2	34.95	31.49
115801	4 meter IEEE-488	2.0	39.95	35.95

Jameco DB25-Pin Ribbon Cable Assembly

- Metal connector
- 300V rating • 105°C rating
- 28 AWG flat cable
- Pin 1 cable indicator
- Tin plated contacts
- Weight: 0.2 lbs.

Part No.	Description	1-9	10-24
12407	4' male to female	$4.95	$4.49
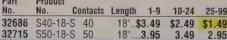
Jameco Socket Connector to Socket Connector Ribbon Cables

- Socket to socket connection
- 300V rating
- 28 AWG gray flat cable
- Tin plated contacts
- Weight: 0.1 lbs.

Part No.	Product No.	Contacts	Length	1-9	10-24	25-99
32686	S40-18-S	40	18"	$3.49	$2.49	$1.49
32715	S50-18-S	50	18"	3.95	3.49	2.95

Jameco Floppy Disk Drive Cable

- For PC/XT/AT and compatible computers
- Connects floppy drives to controller card • Wt.: 0.2 lbs.
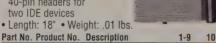
Part No.	Product No.	Description	1-9	10-24
32918	TDC★	For use w/ 1-2 3.5" and 5.25" drives (27" long)	$5.95	$4.49

Jameco IDE Hard Drive Cable

- Includes two socket 40-pin headers for two IDE devices
- Length: 18" • Weight: .01 lbs.

Part No.	Product No.	Description	1-9	10-24
72805	GCA28★	IDE cable	$3.95	$2.95

Jameco 6" Power Supply Extension Cable Set 🅄🅛 🅢🅑

- Two 6", 6 connection cables
- Use with standard pair of 6 wire connectors
- Wiring: 18 AWG, 300V rating, UL/CSA approved • Weight: 0.1 lbs.

Part No.	Description	1-9	10-24
130809	Power extension cable set	$2.95	$2.49

Jameco 3.5" and 5.25" Disk Drive Power Splitters

- For PC/XT/AT and compatibles
- Splits 4-line Molex male into 2 females
- Length: 5" each side • Weight: 0.1 lbs.

Part No.	Product No.	Description	1-9	10-49
28353	PCY★	5.25"	$2.49	$1.95
72303	PCY3	3.5"	2.95	2.49

Jameco 3.5" Disk Drive Power Adapter Cable

- For PC/XT/AT and compatibles
- Allows connection of standard 3.5" disk drives to power supplies
- Length: 5" • Weight: 0.2 lbs.

Part No.	Product No.	Description	1-9	10-49
28396	PC3★	3.5" drive power cable	$2.49	$1.95

Jameco RGB Video Cables

- 5 BNC to DA15-pin male high density
- 75Ω coaxial cable
- Pin 1 red, pin 2 green, pin 3 blue, pin 13 (white/black) vertical, pin 14 (gray) horizontal

Part No.	Description	Wt. (lbs.)	1-4	5-9
73648	6' RGB video cable	0.7	$19.95	$17.95
118068	10' RGB video cable	0.9	22.95	20.49

Jameco RCA Cables

- Video/audio applications
- See page 44 for jacks
- Color: black
- Weight: 0.1 lbs.
- **139037:** 1/8" male stereo plug to (2) RCA male (red & white)
- **134797:** Two 4' cables, (1 black and 1 brown)

Part No.	Description	1-9	10-99
106366	3' male to male	$.99	$.85
134797	4' male to male (2 cables) **Closeout**	1.25	1.25
139037	5' male to male "Y"	2.95	1.95
106374	6' male to male	1.49	1.25
29348	10' male to male	1.75	1.49

Jameco SCSI Adapters

- Weight: 0.2 lbs.

Part No.	Description	1-9	10-24
133920	50-pin ribbon header to DB25 female SCSI-I back panel port	$9.95	$8.95
125241	50-pin ribbon header to HPDB50 female SCSI-II back panel port	14.95	13.49
134666	Cent. 50 male SCSI-I to DB25 female SCSI-I	9.95	8.95
134674	DB25 male SCSI-I to Cent. 50 female SCSI-I	9.95	8.95
125250	Cent. 50 male SCSI-I (1) to Cent. 50 female SCSI-I (2) "T" **SALE**	10.95	
145293	DB25 male SCSI-I to HPDB50 female SCSI-II	14.95	13.49
144231	Cent. 50 male SCSI-I to HPDB50 female SCSI-II	14.95	13.49
144223	HPDB50 male SCSI-II to HPDB68 female SCSI-III	24.95	22.49
129971	Cent. 50 SCSI-I terminator	4.95	4.49

FTP Jameco SCSI Cables

- For PC/XT/AT and compatibles • All lines connected
- † Also Macintosh® compatibles

Part No.	Description	1-9	10-49
72848	50-pin SCSI socket ribbon cable † (18")	$3.95	$3.49
137550	68-pin SCSI-III internal ribbon cable (27")	22.95	19.95
73162	Male 50-pin SCSI Centr. to male 50-pin SCSI Centr. † (6')	9.95	7.95
118084	Male 50-pin SCSI Centr. to male HPDB50 SCSI-II cable (6')	24.95	22.49
118914	Male HPDB50 SCSI-II to male HPDB50 SCSI-II (3')	19.95	17.95
118076	Male HPDB50 SCSI-II to male HPDB50 SCSI-II (6')	24.95	22.49
137216	Male Centr. mini 68 SCSI-III to male Centr. mini 68 SCSI-III (3')	29.95	26.95
137226	Male HPDB68-pin SCSI-III to male HPDB68-pin SCSI-III (3')	29.95	26.95
137568	Male HPDB68-pin SCSI-III to male HPDB50-pin SCSI-II (3') **SALE**	35.95	
137576	Male HPDB68-pin SCSI-III to male 50-pin Centr. SCSI-I (3')	39.95	35.95

JAMECO **$1.39** Sale price good at this quantity only **SALE** Sale price to the right of banner good for that quantity, or less
FTP Documentation available at ftp.jameco.com
Also available at your local JIM-PAK retailer - see page 128
99.7% Stock Availability!

Jameco Parallel Printer Cables and Adapters

28695

28741

- PC/XT/AT and compatibles to Centronics-type printers
- 28695/67547 (DB25 to 36-pin adapter)
- Molded and fully shielded DB25-pin male and 36-pin Centronics male connectors

Part No.	Description	Weight (lbs.)	1-9	10-24
28695	DB25M to 36-pin male adapter	0.1	$4.95	$4.49
67547	DB25F to 36-pin male adapter	0.1	4.95	4.49
28741	6' right angle cable	0.5	5.95	5.35
28716★	6' straight cable	0.4	3.95	3.25
123781	10' straight cable	0.6	6.49	5.75
28708★	15' straight cable	0.8	9.95	8.95
101899	25' straight cable	1.1	12.95	11.49

Jameco Centronics 36-Pin Printer Extension Cables

- Molded and fully shielded Centronics 36-pin male and female connectors
- Adds to standard printer cable or for use with switch box applications
- All lines connected

40782

Part No.	Description	Weight (lbs.)	1-9	10-24
135028	8' male to male	1.3	Closeout	$4.95
40791	10' male to male	1.0	9.95	8.95
40782	10' male to female	1.0	9.95	8.95

Jameco Serial Modem Cables

- Molded and fully shielded DB25-pin male and female connectors **135327**
- 9 pins wired straight through: pins 1-8 and 20

Part No.	Description	Weight (lbs.)	1-9	10-24
53962	6' male to male	0.4	$4.95	$3.95
26008	10' male to male	0.5	6.95	6.25
53858	6' male to female	0.4	4.95	3.95
25769★	10' male to female	0.6	6.95	5.95
135327	10' M to F (metal)	1.2	Closeout	3.95

Jameco 9-Pin Serial Cables

- AT and compatibles
- DE9-pin serial ports which need to be converted to DB25-pin serial **109583**
- Molded DE9 female to DB25 male connectors
- Length: (109583) 1'; (31721) 6'

VALUE

FTP

Part No.	Description	Weight (lbs.)	1-9	10-24
109583	1' serial cable	0.2	$3.95	$3.49
31721★	6' serial cable	0.3	4.95	4.49

Jameco Switch Box Mouse Cable

- 6' serial cable – DE9 female to DE9 female
- Use with switch box P/N 132249 (pg 118)
- Length: 6.0'
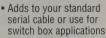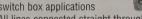
Part No.	Description	Weight (lbs.)	1-9	10-24
132345	Serial mouse cable	0.3	$4.95	$4.49

Jameco DB25-Pin Extension Cables

- Molded and fully shielded DB25-pin male and female connectors
- Adds to your standard serial cable or use for switch box applications **39511**
- All lines connected straight through
- Thumbscrews make it easy to secure cables quickly without tools

Part No.	Description	Weight (lbs.)	1-9	10-24
65787	6' male to male	0.5	$4.95	$4.49
39538★	10' male to male	0.7	6.95	6.25
67070	25' male to male	1.4	9.95	8.95
67256	6' male to female	0.5	4.95	4.49
39511★	10' male to female	0.7	6.95	6.25
101995	25' male to female	1.4	9.95	8.95

Jameco PS/2 Keyboard Adapter Cables

28003:
- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN
- Length: 7.3" • Color: beige **28003**

85500:
- Connects PS/2 keyboard to AT compatible computer
- 6-pin female mini DIN to 5-pin male DIN connectors
- Flexible cable • Length: 8.5" • Color: beige

Part No.	Description	Weight (lbs.)	1-9	10-24
28003	AT keyboard adapter	.06	$4.95	$4.49
85500★	PS/2 keyboard adapter	.08	4.95	4.49
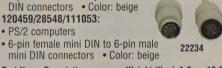
Jameco Keyboard Extension Cables

22234/112045/114981:
- PC/XT/AT and compatibles
- 5-pin male DIN to 5-pin female DIN connectors • Color: beige

120459/28548/111053:
- PS/2 computers
- 6-pin female mini DIN to 6-pin male mini DIN connectors • Color: beige **22234**

Part No.	Description	Weight (lbs.)	1-9	10-24
22234★	PC/XT/AT 5' coiled	0.2	$4.95	$4.49
114981	PC/XT/AT 6' non-coiled	0.2	5.25	4.75
112045	PC/XT/AT 10' non-coiled	0.3	5.49	4.95
120459	PS/2 5' coiled	0.2	Closeout	1.95
28548★	PS/2 6' non-coiled	0.2	5.25	4.75
111053	PS/2 10' non-coiled	0.3	5.49	4.95

IBM PS/2 Keyboard Cables

128637

128645

Part No.	Description	Weight (lbs.)		Price
128637	PS/2 5' coiled, beige	0.1	Closeout	$2.95
128645	PS/2 10' coiled, beige	0.3	Closeout	3.95

Jameco Switch Box Adapter Cables

112627

114913: • 5' 5-pin DIN male coiled cable for 114163/114155 switch boxes – see pg 117

112627: • 10' 6-pin mini DIN male non-coiled cable for 79177 switch box – see pg 117

Part No.	Description	Weight (lbs.)	1-9	10-24
114913★	5-pin DIN cable	0.2	$4.95	$3.95
112627	6-pin mini DIN cable	0.3	5.95	5.35

Jameco VGA Monitor Extension Cables

- PC/XT/AT and compatibles
- Extends VGA monitor cable DA15 male to DA15 female
- P/N 66165 – thumb screws on each end **66165** **134041**
  P/N 134041 – DA15 female with hex nuts and DA15 male with thumb screws • Length: 6'

Part No.	Description	Weight (lbs.)	1-9	10-24
66165★	Cable – thumb screws	0.3	$4.95	$4.49
134041	Cable – screws/hex nuts	0.4	4.95	3.95

Jameco VGA Monitor Cable

- PC/XT/AT and compatibles
- Connects video card to VGA monitor
- DA15 male to DA15 male
- Length: 6'

Part No.	Description	Weight (lbs.)	1-9	10-24
66173	6' monitor cable	0.3	$4.95	$4.49

Jameco Monitor Extension Cable

- PC/XT/AT and compatibles
- For monochrome, RGB, EGA and multisync monitors
- Extends standard monitor cable
- DE9 male to DE9 female
- Length: 6'

Part No.	Description	Weight (lbs.)	1-9	10-24
25700★	6' extension cable	0.3	$4.95	$4.49

Jameco Standard Monitor Cable

- PC/XT/AT and compatibles
- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- DE9 male to DE9 male • Length: 6'

Part No.	Description	Weight (lbs.)	1-9	10-24
66157	6' standard cable	0.3	$4.95	$4.49

Jameco Monitor Power Adapter Cable

- PC/XT/AT and compatibles
- Allows connection of monitors direct to standard IBM type power supplies
- Monitor turns off/on automatically via system power switch • Length: 6'

Part No.	Description	Weight (lbs.)	1-9	10-99
26382	Monitor power cable	0.4	$3.95	$3.49

Jameco CD-ROM Cables

Connects your CD-ROM directly to your sound card making installation quick and easy!

- 2 x 28 AWG • Weight: .02 lbs.

127546: compatible with most CD-ROMs

Part No.	Made for:	Length	1-9	10-24
127546	Sony	25"	$4.95	$4.49
136928	Panasonic	20"	4.95	4.49
136936	Mitsumi	20"	4.95	4.49

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Fiber Optics Cable Tester

This compact fiber optics cable tester allows you to test fiber optics cable for continuity by sending a beam of light from a transmitter and receiving by a optical receiver. It generates 850nm/1300nm wave length and tests cable spool. Works with these fiber optic cables of multimode: 50µm, 62.5µm and 100µm, single, duplex or bundle.
- ST optical receiver and transmitter connections
- Can test fiber optics with ST or SC connectors
- Power LED indicator
- Easy to read receiving range
- Weight: 0.4 lbs. • One-year warranty

Specifications:
- Output wavelength: 850nm ±20nm @ 3dB down
- Optical power output: -26dBm ±1dBm in 50µ core
  -23dBm ±1dBm in 62.5µ core
  -20dBm ±1dBm in 100µ core
- Power out indicator range: -22dBm to -40dBm
- Indicator resolution: 2dBm

Part No.	Description	Price
145859	Fiber optics cable tester	$249.95

Cable Tie Canister Pack

- 10 colors (1000 pieces)
- Tension strength: 18 lbs.
- Size: 4.0"L x 0.1"W
- Weight: 0.7 lbs.

Part No.	Description	1-9	10-49	50+
145701	Cable ties (canister pack)	$6.95	$6.25	$5.49

Tectrol 65 Watt Switching Power Supply

- Input voltage: 90-256VAC @ 47-63Hz
- Requires power cord (P/N 38050 – pg 57)
- Mating output connector: P/N 103202 (pg 45)
- On/off rocker switch mounted on chasis
- Minimum load: all outputs at 10% of rated load
- UL/CSA/TUV approved
- Size: 7.6"L x 3.8"W x 1.8"H
- Weight: 1.8 lbs.

+5V @ 6.0A
COM
+12V @ 3.0A
-12V @ 1.5A
-5V @ 0.5A

Part No.	Product No.	1-9	10-24
146106	TO65/10 (1100 in stock)	$9.95	$8.95

PARALLAX BASIC Stamp AppKits

Parallax AppKits include the materials and parts you need to learn about interfacing electronic devices to BASIC Stamp I and II computers, and PIC microcontrollers. Each kit contains the sample device and supporting parts, and source code written for BASIC Stamps and PICs.
- Weight: 0.1 lbs. • One-year warranty

Part No.	Description	1-4	5-9
146456	AppKit: digital thermo	$34.95	$31.49
146430	AppKit: DTMF transceiver	34.95	31.49
146448	AppKit: 12-bit A/D convert	34.95	31.49

PCI UTP/BNC Ethernet Card

- Support for Network Operating Systems: Novell NetWare, Microsoft Windows® for Workgroups, Windows® 95 and Windows® NT
- NE2000 compatible and supporting plug & play function
- Integrated full duplex operation for simultaneous receive and transmit • Medium auto sensing
- Diagnostic LEDs easily visible on bracket
- On board BOOT ROM socket
- Compliant with PCI local bus • FCC certified
- Weight: 0.5 lbs. • One-year warranty

Part No.	Description	1-4	5-9
144928	PCI UTP/BNC card	$34.95	$31.49

Xcelite 7-Piece Precision Screwdriver Set

- 4 flat points: 0.1"Dia. x 5.44"L; 0.1"Dia. x 6.0"L; 0.1"Dia. x 6.5"L; .12"Dia. x 7.25"L
- 3 Phillips: No. 1, .18"Dia. x 7.125"L; No. 0, .12"Dia. x 5.75"L; No. 00, 0.1"Dia. x 6.0"L

Part No.	Description	Price
146632	7 piece precision screwdriver	$24.95

Xcelite Pliers

- USA-made alloy steel
- Spring returns
- Weight: 0.2 lbs.

146739   146712   146721

Part No.	Description	Price
146739	Diag. wire cutter - semi-flush	$13.95
146712	Micro series wire cutter - flush	4.95
146721	Long nose - flat	16.95

3M Super 77 Spray Adhesive

Comes with a variable spray width, no methylene chloride, 1.1.1-trich or chloroflourocarbons.
- Multipurpose
- Meets EPA requirements
- Weight: 2.0 lbs. • 24 oz. can

Glue Stick – like adhesive

Part No.	Description	1-11	12-59
146579	Super 77 spray adhesive	$10.95	$9.95

2-Button Bus Mouse

- High resolution ergonomic design
- Microsoft mouse, Mouse Systems compatible
- Includes mouse, software and bus card
- Mouse size: 4.5"L x 2.8"W
- Bus card size: 4.3"L x 3.0"H
- Weight: 0.9 lbs. • One-year warranty

Part No.	Description	Price
146641	2-button bus mouse	$29.95

Black Magic Telephone Ringing Generators

145841   145795   145824

Telephone ringing generators are miniaturized, monolithically encapsulated four terminal devices (input/output isolated) intended for direct PCB mounting. Generically, they are switching inverters producing low-frequency alternating current to signal telecom ringers or equivalents. By multiplexing the ringing bus, a single generator can support up to several hundred ports. Best employed where space is tight and/or modular design is desired so as to speed design and manufacturing or troubleshooting.
- No reverse polarity protection • Frequency: 20 Hz
- Voltage (Nom): 86V

No.	Prod. No.	Series Resistor	1-9	10-24	25+
145832	PBMR5	300Ω	$14.95	$13.49	$12.95
145841	PBMR12	300Ω	14.95	13.49	12.95
145824	LBMR5	300Ω	29.95	26.95	24.95
145816	LBMR12	300Ω	29.95	26.95	24.95
145795	MBMR24	N/A	45.95	41.49	37.95
145808	MBMR48	N/A	45.95	41.49	37.95

BOMAR BNC Connectors

- **146258:** ideal for applications where multiple insertions will require a connector which can endure the stress of high torque

146528   146510   146544   146536
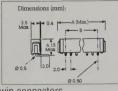
- **146510, 146544, 146536:** maintaining matching impedance at 50 and 75 ohms. Ideal for LAN cards and precision video • Weight: 0.02 lbs.

Part No.	Description	Length (L)	1-9	10-99	100+	500+
146528	Straight PC mount 50 ohms	.830 mm	$1.95	$1.49	$1.25	$.99
146510	BNC low profile with posts	.515 mm	1.95	1.49	1.25	.99
146536	BNC super low profile w/clips	.340 mm	2.95	2.49	1.95	1.75
146544	BNC V-BITE® PC edge mount	.253 mm	2.49	2.25	1.95	1.49

HARWIN Right Angle PC-Tail Male M80 Connectors

- 2 mm pitch
- Polarized mouldings
- Fully shrouded contacts
- Contact Rating: 3.3A max. @ 25°C
- Gold plating on contacts, tin/lead on tails
- See page 42 for more Harwin connectors

Part No.	Description	Position	A	B	1-9	10-99	100+
146229	2 pos. unlatched	2	7.6	2.0	$1.59	$1.45	$1.29
146211	3 pos. unlatched	3	9.6	4.0	1.69	1.55	1.39
146237	4 pos. unlatched	4	11.6	6.0	1.79	1.65	1.59
146245	7 pos. unlatched	7	17.6	12.0	1.95	1.85	1.69